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# TILEC Discussion Paper

# Mergers and Acquisitions in Europe

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## **Abstract:**

This paper provides a comprehensive overview of the European takeover market. We characterize the main features of the domestic and cross-border corporate takeovers involving European companies in the period 1993-2001. We provide detailed and comparable information on the size and dynamics of takeover activity in 28 Continental European countries, the UK and Ireland. The data is supplemented with the characteristics of takeover transactions, including the type of takeovers (negotiated acquisition or tender offer), bid attitude (friendly or hostile), payment method (all-cash, all-equity, or mixed deals), legal status of the target firm (public or private), takeover strategy (focus or diversification), amongst other factors. In addition, we investigate the short-term wealth effects of 2,419 European mergers and acquisitions. We find announcement effects of 9% for target firms compared to a statistically significant announcement effect of only 0.5% for the bidders. Including the price run-up, the share price reaction amounts to 21% for the targets and 0.9% for the bidders. We show that the estimated shareholder wealth effect strongly depends on the different attributes of the takeovers. The type of takeover bid has a large impact on the short-term wealth effects for the target firm shareholders with hostile takeovers triggering substantially larger price reactions than friendly transactions. When a UK target is involved, the abnormal returns are higher than those of bids involving a Continental European target. There is strong evidence that the means of payment has a large impact on the share prices of both bidder and target.

**JEL codes:** G34

**Key words:** takeovers, mergers and acquisitions, diversification, takeover waves, means of payment

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## **1. Introduction.**

It is now a well-known fact that mergers and acquisitions (M&As) come in waves. Golbe and White (1993) were among the first to observe empirically the cyclical pattern of M&A activity. Thus far, five waves have been examined in the literature: those of the early 1900s, the 1920s, the 1960s, the 1980s, and the 1990s. Of these, the most recent wave was particularly remarkable in terms of size and geographical dispersion. For the first time, Continental European firms were as eager to participate as their US and UK counterparts, and M&A activity in Europe hit levels similar to those experienced in the US. It is widely believed that the introduction of the Euro, the globalisation process, technological innovation, deregulation and privatisation, as well as the financial markets boom spurred European companies to take part in M&As during the 1990s.

This chapter provides a comprehensive overview of the European takeover market. We characterize the main features of the domestic and cross-border corporate takeovers involving European companies in the period 1993-2001 and contrast them to those of takeovers in the second takeover wave of 1984-1989. We provide detailed information on the size and dynamics of takeover activity in 28 Continental European countries and the UK and Ireland. In addition, we investigate the shareholder short-term wealth effects of a large sample of European M&As. We examine how the estimated shareholder wealth effects vary depending on the different types of takeovers (merger or tender offer), bid attitude (friendly or hostile), payment method (all-cash, all-equity, or mixed), legal status of the target firm (public or private), takeover strategy (focus or diversification) and the legal origin of bidder and target. As all these bid-specific characteristics reflect the bidders' motives (shareholder value-maximization objective, managers' personal utility, or managerial hubris), we expect them to explain a significant part of variation in the shareholder wealth effects across the takeover deals.

The bulk of previous research on M&A activity is confined to the US and UK. We believe that a European-wide study contributes to this literature, as it allows us to evaluate the impact of a wide range of institutional settings and legal and regulatory rules on the pattern of M&A activity. In comparison to the US and UK, Continental European companies are characterized by weaker investor protection and less developed capital markets (LaPorta et al. 1998), and by more concentrated ownership structure (Faccio and Lang 2002). The analysis presented in this chapter emphasizes the potential differences in Anglo-American markets for corporate control and Continental European ones.

The rest of this chapter is outlined as follows. In Section 2, we provide a detailed overview of the European market for corporate control in 1984-2001. Section 3 reviews the main findings from previous studies on mergers and acquisitions. Section 4 describes the data sources, sample statistics, and methodology used to compute cumulative average abnormal returns. Section 5 investigates the short-term wealth effects for target and bidder firms realized in intra-European M&As in the 1990s. We relate the announcement effect to the various characteristics of target and bidding firms and of the bid itself. Section 6 concludes.

## **2. The fifth takeover wave in Europe.**

The most recent –the fifth- wave of mergers and acquisitions was particularly remarkable compared to its predecessors. For the first time, Continental European firms were as eager to participate in takeovers as their US and UK counterparts, and M&A activity in Europe hit levels similar to those experienced in the US. While the main engine of takeover activity in Europe during the 1990s was still the UK, M&As in Continental Europe have risen substantially both in number of deals and total transaction value compared to the previous decades. According to the Thomson Financial Securities Data, 87,804 M&A deals were recorded for Europe (including the UK) during 1993-2001. In contrast, there were only 9,958 such transactions during the fourth European merger wave (1983-89). The fifth wave in Europe is impressive in monetary terms as well, since its total value adds up to US\$ 5.6 trillion (see Figure 1), more than eight times the combined total of the fourth wave.

[Insert Figures 1 and 2 about here]

As depicted in Figures 1 and 2, there was a pattern of strong growth in the European M&A market over the last twenty years. From being almost negligible in the beginning of the 1980s, the takeover market reached a level of 4,000 annual transactions by the end of the fourth takeover wave. Furthermore, it started with 7,000 M&As at the beginning of the fifth wave in 1993, and more than doubled by 2000.

The growing M&A activity in the late 1980s was mainly due to a significant increase in the number of transatlantic deals (whereby US firms were most active as acquirers). The opposite is true for the market for corporate control in the 1990s: the surge can be largely explained by the increase in intra-European transactions while the number of transatlantic M&As remained relatively stable (on average 2,500 per annum). Much of the change in focus towards intra-European deals can be attributed to the challenges

brought about by the development of the single European market and the introduction of the Euro in the 1990s. Fragmented and mostly domestically-oriented European companies resorted to takeover deals as a means to survive the tougher regional competition created by the new market. The introduction of the Euro has put additional pressure on firms, as it eliminated all currency risks within the Eurozone and reduced the home bias of investors. Cross-border acquisitions are expected to yield cost advantages and are to enable firms to expand their business more rapidly abroad. Moreover, takeover activity was fuelled by the creation of a liquid European capital market which provides companies with new sources of financing (such as Euro-denominated bonds). As a result of such economic and structural changes on the Continent, the market for corporate control in Europe peaked at US\$ 1.2 trillion in 1999, a marked contrast with the peak of the fourth merger wave which amounted to merely US\$ 0.15 trillion.

## **2.1. Cross-border versus domestic acquisitions.**

Of the intra-European M&As of the period 1993-2001, one third were cross-border deals Figure 3 illustrates that the value of the international transactions account for nearly half of the total investment in M&As by the end of 1999, up from 22% in 1995. The figures also reflect the impact of some unprecedented mega-deals such as the acquisition of Mannesmann by Vodafone in 1999 (for US\$ 202 billion).

[Insert Figure 3 about here]

Figure 4 shows that the most active participants in the intra-European cross-border market as acquirers were British, German, and French firms, which paid together more than US\$ 1 trillion to take over foreign firms. These deals represented 70% of the total amount spent on intra-European cross-border M&As over the period 1993-2001. Firms from the UK, Germany and France were also most frequently the targets of cross-border acquisitions; they were sold for a total of US\$ 0.9 trillion during the 5<sup>th</sup> takeover wave, amounting to about 60% of the overall value of cross-border M&As. The UK and France were the biggest net acquirers in cross-border takeovers, whereas Germany was a net receiver in the intra-European cross-border market. Figure 5 sketches a similar picture based on the number of cross-border acquisitions. The number of cross-border deals surpassed the number of domestic ones in the Benelux countries, Austria, and Ireland. Another interesting observation relates to the Eastern European countries that joined the European Union in 2004. In these countries, many firms were acquired by West-European bidders, predominantly from neighbouring countries (Scandinavia, Austria, and Germany). Likewise, Italian,

Spanish, and Portuguese firms were more frequently involved in M&As as targets (of German, British and French bidders) than as bidders.

[Insert Figures 4 and 5 about here]

## **2.2. Industry clusters, and focus versus a diversification strategies.**

The differences in cross-border M&A patterns across the European countries partly result from restructuring needs in the major national industries. Processes like deregulation and privatization have led to cross-border consolidations in, amongst others, the financial sector and the utilities, by allowing former state-owned companies to acquire firms abroad and to have foreign investors participate in their equity capital. Also, the increasing R&D expenditures gave another boost to international M&As in the high-technology industries including biochemistry and pharmaceuticals (see Figure 6). Figure 7 illustrates the amounts invested through cross-border acquisitions by industry. Although small in terms of the number of deals, the takeovers in the telecommunication sector represented a total value of US\$ 470 billion over the period 1993-2001. This accounts for a one third of the total value of cross-border acquisitions. Another 30% of such foreign investments went to the banking, natural resources, and utilities sectors (for a not insignificant extent through the reorganization of former state-owned firms). Figure 8 shows similar patterns for the domestic M&A markets.

[Insert Figures 6, 7 and 8 about here]

Table 1 discloses that many cross-border M&As made in the 1990s were between firms from the same or related industries. This confirms that international business expansion was one of the goals inciting firms to participate in European cross-border M&As in the 1990s. The smaller percentage of deals within the telecommunication sector can be explained by the fact that the telecoms mainly engaged in vertical integration with high-tech firms. Such takeovers accounted for about 30% of the deals involving telecom acquirers. The fact that most of the domestic and cross-border deals (both horizontal and vertical ones) involved firms in related industries, consolidates the trend to focus on core business which started in the 1980s. Figure 9 depicts that the percentage of total M&A related to divestitures increased (both in terms of number of deals and of takeover value) until 1993 but this effect clearly decreased over the 5<sup>th</sup> takeover wave. Thus, the steady decline in the relative number of divestitures is in line with the fact that the main incentive for European firms in the 1990s boiled down to business expansion in order to address the challenges of the new European market.

[Insert Table 1 and Figure 9 about here]

### **2.3. Means of payment.**

Corporate growth via takeovers, often taking the form of mega-deals, requires considerable financial resources which forces cash-constrained firms to finance the acquisitions with equity or a combination of equity and debt. The boom of the stock market in the second half of the 1990s increased the attractiveness of equity as a means of payment for acquisitions. At the same time, the European market for corporate bonds grew rapidly and provided another accessible source of funds. In addition, a European junk-bond market emerged. Low interest rates and a bank attitude more receptive to risky loans also facilitated M&A activity. Consequently, we observe a switch from cash toward equity and debt in the financial composition of the takeover bids.

Figure 10 exhibits that the proportion of the total value of acquisitions paid in cash averaged about 67% in the 1980s, but declined to 40% over the 1990s. A similar pattern is perceived in the proportion of the number of pure cash deals, which fell by half in the last decade compared to the 1980s (see Figure 11). Whereas the proportion of common equity used in acquisitions augmented to a high 39% of the total value of all acquisitions (in 1998), the relative number of all-equity bids in the 1990s was still rather small. As depicted in Figure 11, the combination of equity, debt, and cash became the most popular method of payments for European M&As during 1991-2001, accounting for about 75% of all deals.

[Insert Figures 10 and 11 about here]

It is commonly believed that the bull market of the 1990s caused a switch from cash to equity financing in M&A deals: the overvaluation of equity provides bidders with a cheap currency to pay for their acquisitions. Figure 12 provides some supporting evidence: whereas the relative number of all-cash transactions is inversely related to the changes in the market index, the trend in all-equity bids is positively correlated to the market. Moreover, there is a clear relation between the choice of the payment method and the size of a takeover (see Figure 13). Firms with insufficient cash resources to finance large acquisitions have increasingly resorted to a combination of equity and debt, but the very large transactions are fully financed with equity. Figure 13 also confirms that the average value of the M&As, especially of the all-equity bids, augments in line with the market index over the 1990s.



[Insert Figures 12 and 13 about here]

#### **2.4. Hostile takeovers.**

Paying too high a price for a target firm is more likely to occur when takeover activity is peaking because the bids become more aggressive and trigger more frequently opposition by the target firm. Figures 13 and 14 show that in 1999, at the peak of the fifth European wave, the average value of deals and the number of hostile bids are both standing out. In that year, an unprecedented number of hostile deals with a total worth of US\$ 501 billion (about half the total value of all M&As in 1999) occurred.

Theoretically, fewer hostile takeovers are expected when the stock market is climbing, as target shareholders prefer to sell their shares when they are likely to be overpriced. Figure 14 depicts that this is indeed the case for the UK domestic takeovers. In this country, the number of hostile bids in the past decade significantly fell compared to the 1980s. In contrast, the domestic bids in Continental Europe and the cross-border bids increased in both number and value compared to the previous wave. Moreover, hostile takeover activity in Europe during the 1990s emerged even in countries in which there was none before. Many hostile bids, which would have been opposed by the political and financial establishment in the 1980s, were welcomed in the 1990s. This last observation is predominantly valid for domestic takeovers, as in the case of cross-border bids, governments still tend to protect national champions and erect barriers for foreign raiders.<sup>1</sup>

#### **2.5. Summary.**

To summarize the above trends characterizing the fifth takeover wave in Europe, we first note that the market for corporate control experienced significant growth in the 1990s partially caused by a significant increase in the number of intra-European acquisitions, of which one-third were cross-border transactions. British, German and French firms were the most active acquirers, but also the most popular targets in the cross-border M&A market. Central European firms were frequently targets in the international market for corporate control. The largest number of cross-border M&As has occurred in the industrial sector, while

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<sup>1</sup> It is believed that the French and Italian governments are rather successful in protecting their national champions. In these countries, hostile cross-border acquisitions hardly ever succeeded in the 1990s. The French and Italian governments encouraged (often inefficient) mergers between national firms to create large national corporations and hence made these firms immune against acquisitions by foreign firms. Examples are the acquisition of Telecom Italia by Olivetti (although it was a hostile bid, its success was largely due to do support by Italian government. that blocked the bid for Telecom Italia by Deutsche Telecom) or the merger between the French supermarket chains Carrefour and Promodes preventing their acquisition by the American chain Wal-Mart.

in terms of total money spent on international M&As the telecommunication sector sticks out. In the domestic takeover market, the financial sector has experienced strong takeover activity. Overall, the number of M&As in related industries significantly surpasses the number of diversifying takeovers.

The financial structure of takeover bids in the 1990s switched from a dominance of cash to a combination of equity, debt and cash, and – specifically for the largest transactions - to all-equity. The peak of the fifth merger wave in Europe is characterized by an increase in the number of hostile M&As, largely due to the fact that Continental Europe experienced growth in both domestic and cross-border unsolicited bids. The UK domestic market attenuates this trend as here we observe a fall in the number of hostile transactions compared to the 1980s wave.

### **3. Literature overview.**

#### **3.1. Market reaction to takeover announcement.**

The empirical literature is unanimous in its conclusion that takeovers create value for the target and bidder shareholders combined, with the majority of the gains accruing to the target shareholders. Shareholders of target firms invariably receive large premiums (on average 10% to 30%) relative to the pre-announcement share price. Jarrell and Poulsen (1989), Servaes (1991), Kaplan and Weisbach (1992), Mulherin and Boone (2000), for instance, report average US target abnormal returns of 29% (for 1963–86), 24% (for 1972–87), 27% for (1971–82), and 21% (for 1990–99), respectively. Similarly to their US counterparts, UK and Continental European targets gain average announcement returns of 24% during the period 1955–85 (Franks and Harris 1989), 19% in 1966–91 (Danbolt 2004), and 13% in 1990–2001 (Goergen and Renneboog 2004). Schwert (1996) emphasizes that the share price reactions of target shareholders are not limited to the announcement day but commence already 42 days prior to the initial public announcement of the bid. Numerous studies report that the price run-up is substantial and often even exceeds the announcement effect itself: the run-up is between 13% and 22% over a period of two months prior to the bid (Asquith et al 1983, Dennis and McConnell 1986, Goergen and Renneboog 2004). These returns imply that the bids are anticipated, and result from rumors, information leakages, or insider trading.

There is a considerable contrast between the large share price returns of target firms and the frequently negligible returns of bidding firms. Empirical evidence suggests that bidder shareholders realize abnormal

returns immediately around the announcement day which are insignificantly different from zero. For the bidding firms, there is little consensus in the literature about the sign of the price reaction to the announcement of an M&A. About half of the studies report small negative announcement returns for the acquirers (see e.g. Andrade et al. 2001, Mulherin and Boone 2000, Franks et al. 1991, Healy et al. 1992), whereas the other half finds zero or small positive announcement abnormal returns (see e.g. Moeller and Schlingemann 2005, Schwert 2000, Loderer and Martin 1990, Asquith et al. 1983). The share price run-up prior to a takeover announcement over a one-month period is positive, but mostly insignificant for bidder shareholders (Dennis and McConnell 1986, Smith and Kim 1994, Schwert 1996).

As the target shareholders earn large positive abnormal returns and the bidder shareholders do not lose on average, takeovers are expected to increase the combined market value of the merging firms' assets. The empirical literature unanimously documents significant positive announcement effect for the combined firm, although the size of the total effect varies across studies. Bradley et al. (1988), Lang et al. (1989), and Healy et al. (1992) compute average abnormal returns for the combined firm of 7% for 1963-84, 11% for 1968-86, and 9% for 1979-84 respectively. Franks et al. (1991), Kaplan and Weisbach (1992), and Mulherin and Boone (2000) report total takeover announcement gains of 4% for different sub-periods between 1971 and 1999, whereas Andrade et al. (2001) state that the combined announcement effect for the period 1973-98 is 1.8% in the US.

### **3.2. Determinants of share price reactions.**

The M&A literature has shown that a variety of attributes affect the value of bidding and target firms at the announcement of corporate takeovers<sup>2</sup>. First, the announcements of tender offers and of hostile acquisitions generate higher target returns than the announcement of friendly M&As. In contrast, bidder returns on the announcement day are significantly lower in hostile bids than in friendly M&As (see e.g. Goergen and Renneboog 2004, Gregory 1997, Franks and Mayer 1996, Servaes 1991).

Second, when the bidding management owns large equity stakes, the share price reactions of bidding firms are higher (see e.g. Healy et al. 1997, Agrawal and Mandelker 1987). This suggests that, when managers do not own equity, the fact that agency problems in the firm are higher is discounted in the share prices. The bidder shareholders may therefore believe that managers with low share participation

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<sup>2</sup> For an overview of the evidence on the wealth effects of M&A activity and the motives for takeovers, see Jensen and Ruback (1983), Jarrell et al. (1988), Agrawal and Jaffe (2000), Bruner (2003), and Martynova and Renneboog (2005).

give priority to growth strategies (including value-destroying mergers), rather than focus on shareholder value maximization.

Third, all-cash bids generate higher target and bidder returns than all-equity acquisitions (see e.g. Moeller et al 2004, Andrade et al. 2001, Franks et al. 1991). The announcement that an equity bid is made may signal that the bidding managers believe that their firms' shares are overpriced so that investors adjust the bidders' share prices downwards. This is in line with the fact that managers attempt to time equity issues to coincide with surging stock markets or even at the peak of the stock market cycle.

Fourth, acquiring firms with excess cash destroy value by overbidding. Several papers have shown evidence that free cash flow is frequently used for managerial empire building (see e.g. Jensen 1986, Servaes 1991, Lang et al. 1991).

Fifth, corporate diversification strategies destroy value (Doukas et al. 2002, Hubbard and Palia 1999, Berger and Ofek 1995, Morck et al. 1990). This confirms that companies should not attempt to do what investors can do better themselves, i.e. creating a diversified portfolio.

Sixth, the acquisition of value-companies leads to higher bidder and target returns. Rau and Vermaelen (1998) show that the acquisition of firms with low market-to-book ratios generates high abnormal returns for the shareholders of the bidding firm whereas the takeover of firms with high market-to-book ratios yields substantial negative abnormal returns.

Finally, target firms in cross-border acquisitions tend to pocket larger abnormal returns than their counterparts in domestic bids (Wansley et al. 1983, Dewenter 1995, Danbolt 2004). It follows that the share price of bidders acquiring foreign firms significantly underperforms that of bidders participating in domestic takeovers (Conn et al. 2005). The market anticipates that regulatory and national cultural differences between the bidders' and targets' countries may lead to difficulties in managing the post-merger process (Baldwin and Caves 1991, Schoenberg 1999).

### **3.3. Motives for takeovers.**

The literature offers several alternatives as to what motivates companies to participate in corporate takeovers. The key explanations are synergies and the correction of managerial failure. Typically, takeovers (are expected to) create operating and financial synergies. Operating synergies arise through the realization of economies of scale and scope, the elimination of duplicate activities, vertical integration,

the transfer of knowledge or skills by the bidder's management team, and a reduction in agency costs by bringing organization-specific assets under common ownership (Ravenscraft and Scherer 1987, 1989). The creation of operating synergies reduces production and/or distribution costs, yielding an incremental cash flow accruing to the firm's post-merger shareholders. Operating synergies tend to arise mainly when the merging firms are in the same or related industries (Comment and Jarrell 1995). Further, operating synergies may include acquisition of technology or intangible assets, such as acquisition of knowledge of new markets in cross-border takeovers.

Diversifying takeovers are expected to benefit from financial synergies. Financial synergies may include improved cash flow stability, lower bankruptcy probability (Lewellen 1971, Higgins and Schall 1975), cheaper access to capital, an internal capital market (Bhide 1990), the use of underutilized tax shields, as well as contracting efficiencies created by a reduction in managers' employment risk (Amihud and Lev 1981).

The role of hostile acquisitions as a disciplinary force to correct managerial failure is also often cited as a motive. In this scenario, hostile takeovers target poorly performing firms and replace underperforming management. Until recently, this disciplinary market for corporate control existed mostly in the US (Morck et al. 1988, Bhide 1989, Martin and McConnell 1991). Hasbrouck (1985), Palepu (1986), Morck et al. (1989), and Mitchell and Lehn (1990) provide evidence that, prior to the acquisition, US target firms in hostile takeovers significantly underperform their peers in friendly M&As. However, Franks and Mayer (1996) cast doubt on the role of the M&A market as a disciplinary device in the UK. Also, a growing number of recent empirical studies report that the disciplining function of hostile takeovers is not the primary motive for the target firms' managers to oppose takeover attempts (Ravenscraft and Scherer 1987, Martin and McConnell 1991, Schwert 2000). Hostility may also result from a bargaining strategy to extract a higher premium for the target shareholders (Schwert, 2000) or from the target directors' viewpoint that the proposed takeover is incompatible with the target's long-term strategy.

Domestically-oriented companies frequently resort to cross-border takeovers as a means to survive the tough international competition in global markets. Expansion abroad also enables companies to exploit differences in tax systems and to capture rents resulting from market inefficiencies such as national controls over labour markets (Scholes and Wolfson 1990, Servaes and Zenner 1994). In addition, imperfect capital markets allow firms to exploit favourable exchange rate movements by moving operations to other countries or by acquiring foreign firms (Froot and Stein 1991, Cebenoyan et al. 1992, Kang 1993).

In this chapter, we investigate the short-term returns for a large sample of intra-European domestic and cross-border mergers and acquisitions. We analyze whether the type of offer has an important impact on the premium paid for the target's shares. Furthermore, we look at the possible impact of different means of payment (all-cash, all-equity or combinations of cash, equity and loan notes) on the bid premium. Given that the level of stock market development and corporate governance regulation differ substantially between the UK and Continental Europe, we investigate whether the abnormal returns for targets and bidders of these regions are significantly different. We also examine the announcement effect of unsuccessful bids to check whether the market already accounts for this ultimate effect at the moment of the first bid announcement. We also study the impact of the stock market bubble by controlling for the impact of year-of-bid effects.

#### **4. Data sources, descriptive statistics and methodology.**

##### **4.1. Sample selection.**

We select our sample of European acquisitions launched between 1993 and 2001 – during the fifth takeover wave - from the Mergers and Acquisitions Database of the Securities Data Company (SDC), which contains detailed historical data on M&As dating back to 1984. We only select domestic and cross-border intra-European takeovers; both the acquirer and the target are from countries within Continental Europe and the UK. The deals also involve firms from Central and Eastern Europe as well as the European former Soviet countries. Further, we retain only the transactions involving a change in control and thus exclude deals intending to buy a mere minority participation. It should be noted that our sample includes not only firms that were successfully taken over but also takeover attempts. The resulting list comprised 25,240 M&A announcements.

In order to reduce endogeneity problems and enhance the comparability of the deals, we focus only on transactions between independent companies. That is, we exclude bids if the bidding party is the management or the employees, or if the target is a subsidiary. In addition, we avoid dealing with the special regulatory environment and accounting issues related to financial institutions: we exclude banks, savings banks, unit trusts, mutual funds and pension funds. These filters reduce the dataset to 13,312 takeover announcements.

We also only retain the takeover deals in which at least one of the participants is a publicly traded company on a European stock exchange in order to ensure the availability of sufficient publicly disclosed

information about the parties involved and about the bid. This reduces the sample to 5,278 takeover announcements. In one fifth of the sample (1,124 announcements), both bidder and target are listed. The sample includes 4,671 (88.5%) acquisitions made by bidders listed on a stock exchange. This figure can be further divided into 1,124 (21.3%) and 3,547 (67.2%) bids for public and private targets respectively. The remaining 607 (11.5%) of the sample constitute bids on publicly traded targets by unlisted bidders.

We also exclude the bids made by the same bidder if these bids occur within less than 300 trading days since the previous announcement of a bid. The reason is that we want to avoid biases in the estimation of the parameters we need in order to calculate the abnormal returns, because we use an estimation period of 240 days ending 60 days before the event and an event window spanning 60 days before and 60 days after the event day. In addition, if two bids on separate firms by the same acquirer are announced within an interval smaller than two months, we eliminate both deals as their event windows would overlap. The remaining sample includes 3,216 bid announcements.

We verified the quality of the SDC data by comparing the information on the announcement date, the companies' countries of origin, the transaction value, payment structure, share of control acquired, bid completion status, and the target's attitude towards the bid with the information from LexisNexis, the Financial Times, and Factiva as the SDC records do frequently not coincide with those of the other sources, corrections were necessary in 36.2% of the deals.

Market and share price returns are gathered from DataStream. We only consider the prices of shares with voting rights, defined as ordinary shares or class A shares for the companies issuing dual-class shares. Our final sample consists of 2,419 deals involving firms from 28 European countries. This sample is representative for the European merger activity during the 1990s for non-financial companies.

#### **4.2. Sample statistics.**

During the 1990s, about 70% of the intra-European takeover bids targeted a domestic firm (Table 2). However, at the peak of the fifth takeover wave (1998-2000), cross-border bids accounted for more than half of all takeovers. In 60% of the takeovers, the deals related to a merger or the acquisition of the full equity of the target firm; while in the remainder the bidder acquires absolute control (more than 50% of the voting rights).

We consider an acquisition as hostile if the board of directors of the target firm rejects the offer for whatever reason. Hostility may, for instance, also result from a bargaining strategy to extract a higher premium for the target shareholders (Schwert 2000) or from the target directors' viewpoint that the proposed strategic plan underlying the acquisition is incompatible with the target firm's own strategy. We also consider all acquisitions with competing bidders as hostile.<sup>3</sup> Within the unopposed takeovers, we also identify the tender offers.<sup>4</sup> Our sample counts 162 (7%) hostile bids, 2257 (93%) friendly M&As, of which 473 are tender offers.

The sample consists of 1,941 (80%) successfully completed M&As, 207 (9%) failed bids as a consequence of successful opposition against the bid or a collapse of the friendly takeover negotiations, and 271 (11%) pending negotiations. According to SDC, a transaction is classified as pending if it has been announced but has not been completed or withdrawn.<sup>5</sup> While the total number of M&As surged, the annual number of withdrawn acquisitions remained relatively stable over the 1990s. This implies that the likelihood of failing takeover negotiations has decreased over time.

About 37% of the target firms are listed (on a European stock exchange). Sixty-four percent of all the M&A announcements are between bidders and targets operating in the same or a related industry<sup>6</sup>, while the remainder are diversifying acquisitions. Out of 1,721 bids of which the payment method was disclosed, the majority (54%) are all-cash offers. Of all the bids involving equity payments, about a half are pure equity-exchange offers. The other half are mixed offers that consist of 53% cash, 47% stock, and less than 1% of loan notes, on average. In contrast to Section 2 where we considered the whole population of European M&As, we cannot conclude based on this sample that there was a shift from cash to equity

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<sup>3</sup> We do not consider white knight acquisitions as hostile. The reasons are: (i) in the acquisition by a white knight target shareholders usually get lower prices than the price offered by the competing (hostile) bidder and (2) white knight bidder do not meet opposition from the target firm. There are very few bids with white knights; classifying these bids as hostile would not materially affect the results.

<sup>4</sup> A friendly tender offer is a public offer to the target shareholders asking them to sell their shares for cash and/or equity at a pre-specified price or equity-exchange ratio, while the target board of directors does not oppose the bid. An acquisition is considered to be successful if a sufficient number of shares are tendered such that the bidder gains control over the target. In friendly M&As the shareholders of each firm approve the deal. Generally, a majority of 2/3 or more of shareholder votes is required for the merger or acquisition to succeed (the required percentage may vary by country).

<sup>5</sup> We have checked the status of all bids which were labeled as 'pending' in the SDC database. To do so, we used LexisNexis and Factiva and have changed the completion status when pending bids were ultimately completed or withdrawn. For a number of bids, no further information was released in the financial press such that we retained the pending status for these bids. It should be noted that many of the pending bids are the ones in which the bidder its intention to acquire control over the target firm, but the acquisition will include several parts. That is, at the announcement, the bidder acquires a large stake in the target of, say, 20% and it also promises to acquire full control (the remaining 30-70%) in a near future.

<sup>6</sup> We define 'companies in related industries' as firms for which the primary 2-digit SIC codes coincide. Changing this definition to the 3-digit SIC classification, does not materially change the results in the remainder of the chapter.



financing in the late 1990s, as the proportion of all-cash and of all-equity bids remains relatively stable over the years.<sup>7</sup>

[Insert Table 2 about here]

Table 3 reports the average size of takeovers by the year of announcement. As expected, the average value of the bids augments in line with the financial markets boom. The average takeover deal was worth US\$ 83 million in 1993, rose to US\$ 494 million in 1998 and reached a record high at US\$ 1.7 billion in 1999. These averages are considerably influenced by outliers.<sup>8</sup> The equity market collapse in March 2000 caused an abrupt reduction in the average value of takeover bids. The most expensive takeover offers during the 1990s were hostile ones. The strikingly high average number of US\$ 11 billion in 1999 incorporates the mega hostile takeover of Mannesmann by Vodafone. Another very large hostile takeovers which is included in our sample is the acquisition of Telecom Italia by Olivetti in Italy for US\$ 35 billion; and of Elf Aquitaine by TotalFina in France for US\$ 50 billion. Cross-border M&As tend to be larger in value than domestic ones (US\$ 1.2 billion versus US\$ 0.3 billion, respectively). Among the largest cross-border deals, we include the cross-border mergers of equals between Sweden's Astra and Britain's Zeneca (for a deal value of US\$ 35 billion) and between Germany's Hoechst and France's Rhone-Poulenc (with a deal value of US\$ 22 billion). As an example of a large friendly domestic merger in France, we point to Carrefour and Promodes (with a deal value of US\$ 16 billion). As listed target firms are larger than privately-held firms, the average value of a takeover of a listed firm exceeds by more than 10 times that of privately-held companies. The average value of intra-industry takeovers is greater than that of diversifying bids. There is also a clear relation between the choice of the method of payment and the takeover value: the highest transaction value is for all-equity acquisitions whereas the lowest one relates to all-cash bids.

[Insert Table 3 about here]

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<sup>7</sup> The sample also includes 698 bids (29%) that lack information about the method of payment. The number of undisclosed payment structures partially results from low disclosure requirements in the countries where these bids occurred. The highest proportion of M&As with undisclosed payment method is observed in Austria (68% of all bids in the country), Germany (67%), and Switzerland (57%).

<sup>8</sup> The largest acquisitions by year are: the US\$ 1.5 billion bid by Lagardere Group for Matra-Hachette (both are located in France); the US\$ 2.5 billion bid in 1994 by Enterprise Oil for Lasmo (both are UK firms); the US\$ 5.5 billion bid in 1995 by Granada Group for Forte (both are UK firms); the US\$ 30 billion bid in 1996 by Ciba-Geigy for Sandoz (both are located in Switzerland); the US\$ 3.5 billion bid in 1997 by Rallye for Casino Guichard Perrachon (both are French firms); the US\$ 35 billion bid in 1998 by Britain's Zeneca Group for Sweden's Astra; the US\$ 202 billion bid in 1999 by Vodafone on Mannesmann; the US\$ 14 billion bid in 2000 by Vodafone for Spain's Airtel; and the US\$ 7 billion bid in 2001 by Germany's E.ON (formerly Veba/Viag) for Britain's Powergen.

Table 4 confirms that the main engine of the takeover activity in Europe is situated in the UK: half of the European domestic takeover transactions occur in the UK and one fifth of all the bidding firms in intra-European cross-border acquisitions are also located in this country. Proportionally, UK firms are less frequently target firms in intra-European deals: merely 12.7% of the European target firms are headquartered in the UK – a percentage which is similar for Germany and France. Also, most hostile bids are concentrated in the UK: 61% of all domestic hostile bids and 41% of all hostile cross-border bids (from a target perspective) occurred here. The second and third largest markets for corporate control in Europe are Germany and France. Takeovers in these two countries constitute respectively 10% and 13% of all domestic bids in our sample. German and French companies are also active acquirers abroad, accounting respectively for 12 and 15% of the cross-border M&A market. The Scandinavian M&A market is also sizeable: Scandinavian acquirers conduct 14.6% of all domestic and 22.2% of all cross-border deals in Europe. Relative to the other major economies in Europe, the takeover activity in Italy is remarkably low. The countries that became member states of the European Union in 2004 account for 15% of all the targets in cross-border M&As. In contrast, domestic acquisitions and cross-border bids made by companies from these countries are almost non-existent and merely constitute 2.5% and 1.4% of total domestic and cross-border M&A activity, respectively.

#### **4.3. Methodology.**

We measure the share price reaction to takeover announcements by computing the abnormal returns around the announcement day. Abnormal returns (ARs) are defined as the difference between the realized return (R) and a benchmark return (BR), which is the expected return in case there would not have been a M&A announcement:

$$AR_{i,t} = R_{i,t} - BR_{i,t} \quad (1)$$

Where  $i$  and  $t$  denote the security and the day, respectively.

To calculate the realized dividend-adjusted daily returns, we use the Datastream return index (RI), the daily share prices (P) and the dividends (D):

$$RI_{i,t} = RI_{i,t-1} * \frac{P_{i,t}}{P_{i,t-1}} \quad \text{except when } t \text{ is ex-date of the dividend payment then:} \quad (2)$$

$$RI_{i,t} = RI_{i,t-1} * \frac{P_{i,t} + D_{i,t}}{P_{i,t-1}}$$

Given the above index (which is also corrected for stock splits, we compute dividend-adjusted daily returns as follows:

$$R_{i,t} = \frac{RI_{i,t} - RI_{i,t-1}}{RI_{i,t-1}} \quad (3)$$

The existing literature on event studies introduces a variety of methodologies to estimate benchmark returns. Most of the studies implicitly assume that the pre-merger strategies of the bidder and target firms persist. Under this assumption, asset pricing models such as the market-adjusted model, the market model, or the Fama-French three-factor model are used to predict the benchmark returns based on the company's pre-merger performance. Consistent with the previous studies we also adopt the persistency assumption and estimate the market model.<sup>9</sup>

The market model benchmark returns are given by:

$$BR_{i,t} = \hat{\alpha}_i + \hat{\beta}_i R_{m,t} \quad (5)$$

where  $R_{m,t}$  is actual market return on day  $t$ . The market model captures the differences in the risk-free rate across countries in  $\hat{\alpha}_i$  and the risk of a security with respect to the market portfolio in  $\hat{\beta}_i$ . To insure the robustness of our results, we apply four techniques to estimate the parameters. First, we estimate equation (5) using OLS regressions. Second, as described in Blume (1979), we adjust the estimated beta for mean-reversion using expression (6):  $\beta_i^A$ . Third, we control for non-synchronous trading which may cause a downward bias on  $\hat{\beta}_i$  (Dimson 1979, Dimson and Marsh 1983). To calculate a Dimson-beta,  $\beta_i^D$ , we run the regression (7) and sum the 6 beta- coefficients as in equation (8). Fourth, we correct the Dimson-beta for reversion to the mean by applying Blume (1979).

$$\beta_i^A = 0.34 + 0.67 \cdot \hat{\beta}_i \quad (6)$$

$$R_{i,t} = \alpha_i + \beta_{i,t-3} R_{m,t-3} + \beta_{i,t-2} R_{m,t-2} + \beta_{i,t-1} R_{m,t-1} + \beta_{i,t} R_{m,t} + \beta_{i,t+1} R_{m,t+1} + \beta_{i,t+2} R_{m,t+2} + \varepsilon_{i,t} \quad (7)$$

$$\beta_i^D = \hat{\beta}_{i,t-3} + \hat{\beta}_{i,t-2} + \hat{\beta}_{i,t-1} + \hat{\beta}_{i,t} + \hat{\beta}_{i,t+1} + \hat{\beta}_{i,t+2} \quad (8)$$

Where  $R_{m,t+k}$  for  $k \in \{-3, -2, -1, 0, 1, 2\}$  are daily lagged and leading market returns, and  $\hat{\beta}_{i,t+k}$  for  $k \in \{-3, -2, -1, 0, 1, 2\}$  are the corresponding parameter estimates.

The market model parameters are estimated over a period of 240 trading days (from 300 to 60 days prior to the event day 0). The event day is either the day of the announcement or the first trading day following the announcement in case the announcement is made on a non-trading day.

We employ two different indices (in separate regressions) as proxies for the market. First, since the study concerns the European market for corporate control in which cross-border acquisitions constitute one-third of all transactions, we opt for a European-wide index including companies from the Eurozone,

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<sup>9</sup> We exclude market-adjusted model as it assumes that the impact of the market is similar across securities. Furthermore, there is a significant variation in the risk-free interest rate across countries: for example, on February 4, 2004 the 3-month government interest rate was 2.5% in Eurozone, 4.13% in the UK, 0.24% in Switzerland, 12.68% in Hungary, 5.47% in Poland.

Scandinavia and the UK (assuming that the indices of Western Europe are also capturing the evolution in Central Europe). As this index ought to consist of large and madcap-firms, we choose the MSCI Europe Index and the S&P Europe 350. Second, in order to capture the specifics of corporate governance regulation in each country and their impact on corporate financial performance, we also estimate the abnormal returns using local market indices. For each country, we take the all-share index of the main national stock exchange. These indices are obtained from DataStream.

We calculate the cumulative average abnormal returns (CAARs) for  $N$  securities over different event windows (from day  $t_1$  to day  $t_2$ ) as follows:

$$CAAR_{\tau} = \frac{1}{N} \sum_{i=1}^N CAR_{i\tau} = \frac{1}{N} \sum_{i=1}^N \sum_{t=t_1}^{t=t_2} AR_{i,t} \quad (9)$$

where  $\tau$  denotes an event window  $(t_1, t_2)$ , for  $-60 \leq t_1 < t_2 \leq +60$ .

To tests the significance of the CAARS, we compute the standard parametric test statistics as discussed in detail by Brown and Warner (1985), and one non-parametric rank statistic, developed by Corrado (1989).<sup>10</sup> The portfolio test statistic assumes that the ARs are larger for securities with higher variance. Hence, equal weights are given to the returns of individual securities. The statistic follows a Student-t distribution, and is approximately standard normal under the null hypothesis. The portfolio test statistics is calculated as:

$$t_p = \frac{CAAR_{\tau}}{\hat{\sigma}(CAAR_{\tau})}, \quad (10)$$

where  $\hat{\sigma}(CAAR_{\tau})$  is the cross-sectional sample standard deviation of CAARs over the event window  $\tau$  for the sample of  $N$  securities:

$$\hat{\sigma}(CAR_{\tau}) = \sqrt{\frac{1}{N^2} \sum_{i=1}^N \sum_{t=t_1}^{t_2} \hat{\sigma}_i^2} \quad (11)$$

Where  $\hat{\sigma}_i$  is an estimator for the standard deviation of the ARs for security  $i$  computed over the estimation window  $(T_{0i}, T_{1i})$ :

$$\hat{\sigma}_i = \sqrt{\frac{1}{L_i - 2} \sum_{t=T_{0i}}^{T_{1i}} (R_{i,t} - \hat{\alpha}_i - \hat{\beta}_i R_{m,t})^2} \quad (12)$$

where  $L_i$  is the number of observations for security  $i$  in the estimation window  $(T_{0i}, T_{1i})$  and equals 240 ( $T_{0i} = -300$  and  $T_{1i} = -60$ ). The standard deviation of the CARs in (11) is based on the assumption that ARs of different securities are uncorrelated. This is generally the case when there is no overlap in the

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<sup>10</sup> The parametric statistics differ with regard to their assumptions about whether or not abnormal returns are constant across securities or increase with the variance. Both parametric test statistics are based on the assumption of joint normality of the abnormal returns.

event windows of individual securities. If the assumption were not valid, then the portfolio statistic would be biased.

Our second parametric tests statistic, the standardized test statistic, assumes that the true ARs are constant across securities. This statistic gives more weight to the securities with lower variance of the ARs. A correct specification requires cross-sectional independence of ARs. Under the null hypothesis, the distribution of this test statistic is Student- $t$ , which converges to the standard normal distribution as the number of securities increases. The statistic is calculated as:

$$t_{st} = \sqrt{\frac{N(L_i - 4)}{L_i - 2}} \frac{1}{N} \sum_{i=1}^N \frac{CAR_{i\tau}}{\hat{\sigma}(CAR_{i\tau})} \quad (13)$$

Where  $\hat{\sigma}(CAR_{i\tau})$  denotes the sample standard deviation of the CARs of the individual securities referring to the event window  $\tau$ :

$$\hat{\sigma}(CAR_{i\tau}) = \sqrt{\sum_{t=t_1}^{t_2} \hat{\sigma}_i^2} \quad \text{with } \hat{\sigma}_i \text{ defined as in (12)} \quad (14)$$

The Corrado test statistic is non-parametric and hence free of any specific assumptions on the return distribution. Moreover, this test statistic does not require the returns to be symmetrically distributed as is necessary for a correct specification of the non-parametric tests.<sup>11</sup> The test can also handle the problem of cross-sectional dependence of ARs. The Corrado test ranks each security's time series of ARs and then aggregates these individual security's ranks into a time series of mean portfolio ranks. Under the null hypothesis of zero abnormal performance on the event day (window), the distribution of the rank statistic converges to the standard normal distribution. The statistic is specified as follows:

$$t_{rank} = \frac{1}{N} \sum_{i=1}^N \frac{K_{i, Ho} - 0.5(L+1)}{\hat{\sigma}(K)} \quad (15)$$

The standard deviation  $\hat{\sigma}(K)$  is estimated using the entire sample of securities and their time series of ARs:

$$\hat{\sigma}(K) = \sqrt{\frac{1}{L} \sum_{\{j\}} \left( \frac{1}{N} \sum_{i=1}^N (K_{ij} - 0.5(L+1)) \right)^2} \quad (16)$$

where  $K_{ij}$  denotes the rank of abnormal returns (ARs or CARs) in security  $i$ 's time series in the estimation and event periods combined:

$$K_{ij} = rank(AR_{ij}) \quad (17)$$

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<sup>11</sup> The requirement of symmetry is often violated when daily data are considered. According to Brown and Warner (1985) and Campbell et al. (1997), it is likely that the cross-sectional distribution of daily abnormal returns is skewed to the right.

and  $j$  stands for the order in the time sequence of ARs over the analyzed period. Thus, if daily ARs are considered, then  $j = -300, \dots, +60$ . When multiple-day CARs are considered,  $j$  is the order of windows of  $\tau$ -day length composing the period  $(-300, +60)$ . We denote  $K_{i,H_0}$  the rank of the abnormal returns (CARs) of security  $i$  on the event day (window) for which we hypothesize and test that the returns are insignificant.  $L$  denotes the number of observations (ARs or CARs) comprising the time series for each security, such that  $L$  equals 360 for daily ARs and  $L$  equals  $360/\tau$  for CARs over the window of  $\tau$  days. The rank test uses the fact that the expected rank under the null hypothesis is  $0.5(L + 1)$ .

Campbell and Wasley (1996) show that, compared to parametric test statistics, the rank test is consistently best-specified and the most powerful test statistic across numerous event conditions, such as multi-day event periods, clustered event days, and increases in variance on the event day.

## **5. Results.**

In this section, we focus on univariate analyses of CAARs for target and bidding firms realized in intra-European M&As. We relate the CAARs to the various characteristics of target and bidding firms and of the bid itself: these include the location of the target (domestic versus cross-border M&As), the type of the takeover (hostile bid, tender offer, merger, friendly acquisition), the nationality and legal origin of the bidding and target firms, the means of payment (all-cash, all-equity, or mixed offer), the success or failure of the negotiations (successfully completed, pending, or withdrawn), the sub-period of the takeover wave in which the bid was announced (the run-up, the peak and the decline of the wave), the legal status of the target firm (listed versus privately-held), the corporate strategy (focus versus diversification strategy), and the form of the takeover (a full acquisition versus a partial control acquisition).

### **5.1. Target versus bidding firms.**

As a bidding firm is expected to create significant additional corporate value when it acquires a target firm, the target shareholders will only be enticed to sell their share stakes if they are offered a substantial premium. This premium (the future synergetic value) should be immediately reflected in the target firms' share prices. Figure 15 depicts that the announcement of a takeover bid causes substantial positive abnormal returns for the target shareholders: on the event day, an abnormal return of 9% is realized. In addition, there is a significant increase in target share prices over the period of two months (about 40 trading days) prior to the initial public announcement. On average, investors owning shares in the target firm for a period starting 2 months prior to the event day and selling their shares at the end of the event

day would earn a return of 21% (Table 5). After about 25 trading days subsequent to the event day, the CAAR decreases by 2% due to the fact that some bids are withdrawn as a consequence of successful opposition by the target's board of directors or that delays in takeover negotiations raise investors' concerns about the ultimate success of the bid.

In comparison to the target CAARs, the price reactions for the bidding firms are modest: Figure 16 shows a small (though statistically significant at the 1% level) abnormal return of 0.5%. Over a 10-day window centred around the event day, the statistically significant CAAR amounts to 0.8%. Strikingly, the CAARs of the bidding firm generated over a 3-month period (−3%) subsequent to the bid are significantly negative. This negative return includes the effects of all revisions in expectations and in the offer price and may therefore be a more complete measure of the takeover wealth effect for the shareholders of the bidding firm. In the next subsections, we show that the negative pattern of the post-announcement abnormal returns is affected by various characteristics of the transaction, such as opposition by the board of the target firm against the bid, the payment method, and the expected (or realized) outcome of the M&A negotiations.

[Insert about here Table 5, Figures 15 and 16]

## **5.2. Hostile bids versus friendly mergers and acquisitions.**

To analyze the market reactions to the different types of takeovers, we partition all bids into three groups based on the target firm's attitude towards the bid (hostile vs. friendly) and by the form of the bid (tender offer versus negotiated M&A). For all of these types, there is a strong positive increase (statistically significant at the 1% level) in the target share prices at the bid announcement, as shown by Figure 17. Expectedly, hostile bids generate the largest abnormal returns (15%) to the target shareholders on the announcement day. The returns of hostile takeover bids are significantly higher than the ones for friendly M&As and unopposed tender offers: the announcement effect is only 3% for friendly M&As and 12% for unopposed tender offers. We do not consider unopposed tender offers as hostile, as (by definition) they are not opposed by the board of directors of the target firm. However, As the bidder bypasses the board of directors of the target firm with a tender offer and addresses the target shareholders directly, a tender offer, even unopposed, is somewhere between a friendly bid and a hostile one. Therefore, we expect unopposed tender offers to trigger large share price increases for the target firms. When a hostile bid is made, the share price of the target immediately reflects the expectation that opposition will lead to upward revisions of the offer price. Likewise, an offer made directly to the shareholders by means of a tender offer is also usually occurring at a substantial premium above the pre-announcement market price.

Figure 17 also unveils that there are large differences in the share price run-ups between friendly and hostile takeover bids. A hostile acquisition generates a CAAR of more than 30% over a 2-month period preceding and including the announcement day. In contrast, the target share prices of friendly M&As (excluding unopposed tender offers) significantly underperform those of hostile bids and tender offers both before and after the deal announcement. Over the holding period of 6 months centred on the event day, friendly M&As trigger a cumulative average abnormal return of only 10%, whereas the wealth effects amount to 32% for unopposed tender offers and 44% for hostile bids.

[Insert about here Figures 17 and 18]

Figure 18 reports the CAARs for the bidding firms by attitude and by type of takeover. The bidding firms' shareholders clearly react differently to the announcements of friendly M&As, unopposed tender offers or hostile bids. In the two-month period prior to the bid, the CAARs of the bidding firms decrease slightly in the case of friendly M&As, whereas those for bids which will later be publicly announced as tender offers or hostile bids are significantly positive at 2.9% and 1.6%, respectively. It seems that a takeover via a tender offer or hostile bid is anticipated by the market and evaluated positively. On the event day, the share price endures a small negative price correction. The reason is that the shareholders of the bidding firms fear that their firm will offer too high a premium in case of bid opposition or in case of a direct offer to the target shareholders as upward price revisions erode the synergy value accruing to the bidder. The announcement of a friendly M&A is greeted favourably by the market as the ARs are significantly positive (0.8%).

Irrespective of the takeover type, all bidders realize significant decreases in market value over the three-month post-event period. It seems that the market price reactions to the announcements (and prior to the event) are overoptimistic and that the bidders' shareholders have second thoughts about the transaction. The abnormal returns for the bidding firms accumulated starting three months prior through three months after the bid announcement are virtually zero (0.02%) in unopposed tender offers, but significantly negative in hostile bids and friendly M&As (-1.6% and -4.4%, respectively).

### **5.3. Means of payment in takeover bids.**

The means of payment is generally considered to be an important signal of the quality of the target firm (or the potential synergy value). If the offer consists of cash, the bidding firm signals that it wants to pay



off the target shareholders in order to not share future value increases of the merged firms. In contrast, an all-equity offer signals that the bidders' shareholders intend to keep the target shareholders involved in the merged company and share its risk. Hence, the target shareholders believe that their firm is peach when the bidder makes a cash offer while their firm may be less valuable when an all-equity bid is made. Asymmetric information between the bidder's management and outside investors may influence the choice of the means of payment in an acquisition and the consequent market reaction to the announcement of the payment method. We report strong evidence in Figure 19 that the target's share price reaction is indeed sensitive to the means of payment in a takeover bid. All-cash offers as well as bids combining cash, equity and loan notes trigger substantially higher abnormal returns (respectively, 12% and 10% at the announcement) than all-equity bids (7%). Figure 19 also shows that the announcement effect combined with the price run-up (over two months prior to the event day) yields CAARs almost 26% and 24% for all-cash bids and combined offers, respectively. The corresponding return for all-equity bids is merely 15%. Regardless of the event window, the CAARs of cash-financed bids are significantly higher than those of equity-financed bids at the 1% significance level. Strikingly, acquisitions with undisclosed payment method hardly lead to a price change at the announcement (at 0.5% which is insignificantly different from zero). The lack of information on such bids is even penalized by the market as the share price decreases by 4% over three-month period subsequent to the event day.

[Insert about here Figures 19 and 20]

If the managers of a bidding firm are convinced that the true value of their firm's shares is worth more than the current share price, they will prefer not to issue equity (to finance an all-equity bid or a mixed offer) but to finance the acquisition with cash. Hence, the market may interpret the financing choice as a signal about firm's under- or overvaluation and revise the share price of the firm offering cash (equity) upwards (downwards). Thus, a negative price correction is expected for all-equity bids and a positive one for all-cash bids. Figure 20 confirms this: the bidder's shareholders greet offers involving cash payments more favourably (0.6% for all-cash and 0.9% for mixed bids) than all-equity offers (of which the abnormal returns are indistinguishable from zero). In the period following the bid announcement, the bidders' share prices all decline but bids involving equity payments decline substantially more than all-cash offers. The CAARs over a 6-month period of all-cash bids are not significantly different from zero (at -0.9%), whereas those of all-equity bids and mixed offers are significantly negative (-2.2% and -2.8%, respectively). This negative price reaction to bids involving equity confirms that the market believes that equity payments transmit a signal that the bidding firm is overvalued.

#### **5.4. Domestic versus cross-border acquisitions.**

As pointed out above, 70% of the intra-European M&As are domestic deals. Figure 21 depicts that the announcement effect of domestic and cross-border targets amounts to 10% and 8%, respectively. This difference is statistically significant. When we add the price run-up (from 40 trading days prior to the event), the difference of nearly 3% remains significant. One reason why premiums are on average higher for domestic targets than for cross-border targets is that the sample of domestic M&As includes a higher proportion of UK targets (50% versus only 13% in the cross-border takeover sample). Furthermore, we have shown above that hostile acquisitions occur more frequently in the UK than in Continental Europe and trigger larger price reactions. Furthermore, the sample composition may give another reason for the difference in premiums: 15% of the cross-border targets are companies from countries that joined the EU in 2004 or are expected to join in 2007. The CAARs of target firms from these countries in the domestic takeover sample amounts to merely 2.5%. The share prices of these Central European cross-border targets are virtually unaffected by the announcement of a takeover bid and even sharply decline after the event day.

Figure 22 also reveals that bidding firms engaging in cross-border bids experience lower announcement effects than those undertaking domestic acquisitions (0.4% versus 0.6%, respectively), the difference of which is statistically significant. Subsequent to the event day, the negative price correction for bidding firms is larger for cross-border bids than for domestic ones (-3.6% versus -2.5%). Some of the reasons for these effects are presented in the subsequent two subsections.

[Insert about here Figures 21 and 22]

#### **5.5. UK versus Continental European bids.**

As 85% of the companies listed on the London Stock Exchange are widely held, they are continually up for auction (Goergen and Renneboog 2004). Thus, an active market for corporate control takes place in the UK. In contrast, the number of listed firms in Continental Europe is much lower and most listed firms (around 85 to 90% in Germany and France) have concentrated ownership or control (for a detailed overview of ownership and control in Europe, see Barca and Becht 2001, Faccio and Lang 2002). Hence, unsurprisingly, about half of the sample of target and bidding firms listed on a stock exchange are located in the UK or Ireland and hostile acquisitions are more rare in Continental Europe. As there is a high degree of disclosure in the UK, a liquid and well-developed equity market (McCahery and Renneboog

2002) and a higher degree of shareholder protection (La Porta et al. 1998), we expect higher premiums in takeover bids involving UK firms.

We do indeed confirm this conjecture: the announcement effect is substantially larger for the UK target firms in domestic bids (13.7%) than for Continental European targets (4.5%). This significant difference even augments over the period including the event day and the price run-up over 2 months prior to the event: the premiums amount to 28% and 12% for UK and European targets, respectively (Figure 23). The Continental European bidders' CAARs over the same period are similar to those of the UK bidders (they amount to about 1%). Still, Figure 24 shows that the negative price correction that takes place over the three months subsequent to the bid announcement is substantially larger for acquirers from Continental Europe.<sup>12</sup>

When we examine the short-term wealth effects in cross-border acquisitions from the perspective of the location of the target (UK versus Continental Europe), we find the following. When UK firms are acquired, the premium offered towers above that of Continental European target firms: 13.8% versus 5.9% at the announcement (Figure 23). When we add the price run-up period, the numbers increase to 37% versus 14%, respectively. Over a six-month period around the event day, UK target firms' short-term wealth effects amount to 48.1% while their Continental European counterparts' share prices rise to 17.3% on average. This difference in premiums may reflect a more strict takeover legislation in the UK than in the Continental European countries, which protects the target shareholders from expropriation by the bidder and gives the target shareholders more power to extract higher premiums in takeover negotiations (Goergen et al. 2005).

The short-term wealth effects of foreign firms bidding on UK targets is not significantly different from zero, whereas that of foreign firms attempting to acquire firms in Continental Europe is 0.5% which is statistically significantly different from zero (Figure 24). The reason a bid on a Continental target is hailed more positively than a bid on a UK target may lie in the fact that the premiums paid for Continental targets are substantially lower (see above).

When we focus on the location of the bidding firm (UK versus Continental Europe), we arrive at the following results. There is little difference between the CAARs over the event day and the price run-up period for target firms approached by a UK or a Continental European bidder (21.5% versus 20.5%, respectively). The shareholders of Continental European bidding firms react more positively to cross-

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<sup>12</sup> Appendices A and B show the CAARs of the bidding and target firms by country of origin.

border bids than the shareholders of UK bidding firms, as the announcement effect for bidders are 0.5% and 0.2% respectively.

[Insert about here Figures 23 and 24]

## **5.6. Legal origin of the bidding and target firms.**

Although the difference in CAARs between Continental Europe and the UK is remarkable, there is also some variation in the market reaction to takeovers across the Continental European countries. Differences in the laws and their enforcement may explain a part of this variation. Rossi and Volpin (2004) show that the legal environment and takeover regulation are important determinants of the takeover gains. They report that takeover premiums are higher in countries with higher shareholder protection and in countries where the mandatory bid requirement is enforced by law. To control for the impact of the legal environment on takeover premiums, we classify all acquisitions into five groups according to the legal origin of the bidding (and target) firms, following LaPorta et al. (1998). Countries from the former communist block are classified according to their (staged) accession to the European Union, as this event has had an important impact on their regulatory environment.

Figure 25 exhibits the marked differences in target share price reactions at the announcement, over the price run-up period and over the post-announcement period for domestic bids by legal origin. As also documented above, the target firms of English legal origin experience very large wealth effects over all windows (around, before and after the event day). Importantly, target firms in Scandinavian countries, which have a corporate governance legislation and institutional financial environment close to that of the UK (LaPorta et al. 1998), also exhibit strongly positive CAARs (of 21% over the event day and the price run-up period). While the target firms in countries of the recent (2004) and the upcoming (2007-2009) EU enlargement have the lowest announcement effect (−0.5%), that of target firms of French and German legal origin is also particularly low (with CAARs of 1.7% and 2.3%, respectively).

Figure 26 documents that the legal origin of the bidding firm also has a clear impact on the bidders' abnormal returns in domestic bids. Takeovers by bidding firms of English, German and Scandinavian legal origin generate significantly positive announcement effects whereas those by bidders of French legal origin and of the EU enlargement are not different from zero. Over time windows of 6 months symmetrically around the event date, we find that the bidders in domestic takeovers face negative share price movements (for firms in countries of the recent EU enlargement and of countries of German legal

original) or abnormal returns indistinguishable from zero (for firms of French, UK and Scandinavian legal origin).

[Insert about here Figures 25 and 26]

Turning to cross-border acquisitions, we show in Figure 27 that the CAARs spanning the 2-month price run-up period as well as the announcement effect is highest for targets of English legal origin (37%), followed by the effect for those of Scandinavian legal origin (30%), of French legal origin (14%) and of German legal origin (13%). The corresponding effect for targets from the Central European countries is indistinguishable from zero (Figure 28).

[Insert about here Figures 27 and 28]

Given that the corporate governance regime of the acquiring firm is imposed on the target firm<sup>13</sup>, it is important to consider the wealth effect after classifying the cross-border takeover bids based on the legal origin of the acquirer. Figure 29 discloses that the differences between the target share price reactions by legal origin of the bidder are less heterogeneous than those classified by legal origin of the target. As usual, we find that the announcement market reaction when bidders are of English legal origin is larger than those when bidders of the other legal origins. Figure 30 shows that the bidders' share prices are close to zero at the announcement.

[Insert about here Figures 29 and 30]

### **5.7. Bid completion status.**

In this section, we address the question as to whether the markets are able to anticipate the ultimate success or failure of the M&A negotiations. The negotiations are assumed to be ultimately successful if the acquired number of shares is sufficient for the bidder to exercise control, or if the required majority of the target shareholders accept the bid. Out of the 2,419 announcements in our sample 207 ultimately failed, and 271 resulted in prolonged negotiations between the bidder and the target's shareholders (pending bids). Irrespective of the ultimate success or failure of the bid, we find significantly positive

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<sup>13</sup> According to international law, when a foreign firm acquires 100% of a domestic firm, the nationality of the latter changes. Hence, the target firm usually adopts the accounting standards, disclosure practices, and governance structures of the acquiring firm (Bris and Cabolis 2004, and Rossi and Volpin 2004).

announcement effects for the target firms (Figure 31). The event-day effect is significantly larger (by 1% to 2%) for the successful bids than for the failures and pending deals. However, over the 2-month window prior to and including the event day, there is no difference in the CAARs between failed and successful bids (21.8% versus 21.5%). For the same period, pending acquisitions underperform successful and withdrawn bids by 3 to 5%.

Figure 31 shows that whereas the CAARs for the target firms in successful bids are not significantly different from zero subsequent to the announcement, the abnormal returns for the failed bids rise (by about 10%) over the 3 months post-event window. This may result from the fact that the market is relieved that the bid is withdrawn and anticipates other bids in the near future. In contrast, the CAARs for targets in pending acquisitions fall (by about 5%) over the 40 days after the initial announcement, most likely as a reaction to the ongoing uncertainty.

The announcement effect for unsuccessful bidders is negative (-0.6%), but not statistically significant from zero (Figure 32). The total wealth effects (over a 6-month time span) of completed, pending, and withdrawn takeovers range between -6% and -3%, with most losses occurring to the bidding firms facing difficulties to complete the takeover negotiations.

[Insert about here Figures 31 and 32]

## **5.8. Focus versus diversification strategies.**

Although conglomerate acquisitions are expected to create operational and/or financial synergies, the creation of diversified firms is associated with a number of disadvantages such as rent-seeking behavior by divisional managers (Scharfstein and Stein 2000), bargaining problems within the firm (Rajan et al. 2000), or bureaucratic rigidity (Shin and Stulz 1998). These disadvantages of diversification may outweigh the alleged synergies and result in wealth destruction for the shareholders of both the bidding and target firms.

Our sample of 2,419 takeover announcements includes 861 conglomerate takeovers in which bidder and target operate in unrelated industries. Figure 33 compares the CAARs of the target firms in diversifying takeovers with those of M&As in industry-related or focus-oriented M&As. Irrespective of the corporate strategy, shareholders of the target firm can pocket significantly positive abnormal returns at the announcement day. However, these returns are significantly larger (by 2.4%) for unrelated takeovers.

Over the period including the announcement day and the price run-up period, the targets of diversifying takeovers enjoy a CAAR of about 24% whereas the ones of takeovers with a focus strategy experience a CAAR of about 19%. Regardless of the length of the window, diversifying takeovers beat M&As with a focus strategy in the short-run. The difference is likely to be a result of more aggressive bids in diversifying takeovers and greater willingness of bidders to over-pay for the unrelated target firms. This is because diversifying acquisitions are more likely to occur when bidding firms suffer from agency conflicts and free-cash flow problems. In the literature, there is evidence that the management of such firms often acquires unrelated business for personal reasons (e.g. for 'empire building' purposes) at the expense of shareholder value or that managerial hubris leads bidding firms to pay too high premiums.

These conjectures are consistent with our results for bidding companies: diversification destroys value on average and is largely driven by the personal objectives of managers. Figure 34 shows that bidding firms have significantly higher short-run wealth effects around the announcement of a business expansion within the core industry in comparison to the abnormal returns around the announcement of business diversification (0.63% versus 0.36%). Also, it appears that the market anticipates the focus strategy of the bidder, because there is a statistically significant run-up in the bidder's share price over the two-month period prior to the event day. While the share price augments to 1.4% preceding the intra-industry bid announcement, it declines by the same percentage preceding the announcement of a conglomerate takeover.

[Insert about here Figures 33 and 34]

### **5.9. Public versus private target firms.**

Acquisitions of privately-held companies account for the majority of the intra-European acquisitions, namely more than 60%. The theoretical and empirical literature suggests that bids for such firms may lead to bidder returns that exceed those obtained in the bids for public firms (Chang 1998, Moeller et al. 2004, Faccio et al. 2004). The fact that the shares of privately-held firms are by definition illiquid, may create a price discount. Also, privately-held firms are frequently controlled by one investor or investor group with which negotiations may have a better chance to succeed than when a public tender offer has to be launched. However, the acquisition of a private firm may entail considerably more risk for the acquirer due to the fact that less reliable information about the true value and growth potential of the firm is available. Figure 35 exhibits that the announcement of an acquisition of a private firm causes significantly positive abnormal returns of 0.8% to the bidder's shareholders, whereas the announcement of a bid for a

public firm results in an (insignificantly) negative return of  $-0.1\%$ . Moeller et al. (2004) and Faccio et al. (2004) confirm that a bid on a private target results in substantially higher announcement CAARs to the bidders than a bid on a public firm.

In contrast, the post-announcement returns over longer time windows decline to almost  $-3\%$  when a private firm is acquired and to  $-1.3\%$  when a listed firm is taken over (both percentages are significant at the  $1\%$  level). This result is in line with Bradley and Sundaram (2004) who report that the two-year post-announcement returns in takeovers of a public target are insignificant from zero, whereas these returns are significantly negative when the target is private.

[Insert about here Figure 35]

#### **5.10. Full versus partial acquisitions.**

Figure 36 depicts that when a firm announces its intention to acquire full control of a target firm by bidding on the entire equity capital, the abnormal returns to the target firm's shareholders are significantly higher than when a firm merely intends to acquire majority control. At the announcement day, the share price of the target subject to a full acquisition rises by  $12\%$ , an increase which is more than five times larger than the abnormal return of a target subject to the partial control acquisition. Investors purchasing equity of the target firm three months prior to a full takeover and selling the shares at the end of three months subsequent to the announcement earn a CAAR of  $31\%$ . In contrast, only  $14\%$  can be pocketed over the same period in case of a partial acquisition. The lower returns for partial control acquisitions may reflect the concern that a control transfer may lead to expropriation of the rights of the remaining minority shareholders.

However, Figure 37 exhibits that bidder's shareholders also dislike partial acquisitions. Although the announcement effect of partial acquisitions is significantly positive ( $0.4\%$ ), it is notably lower than the announcement effect of the full takeover ( $0.6\%$ ). Also, the acquisition of a majority interest is associated with significant negative abnormal returns both prior and after the transaction announcement whereas a full acquisition is preceded by a significant increase in the equity value of the bidding firm. In sum, investors holding shares of the bidding firm over the six-month period centred around the event day accumulate significant losses of  $-5\%$  in case of a partial acquisition, whereas those holding shares in full takeovers obtain returns insignificantly different from zero.

[Insert about here Figures 36 and 37]



### **5.11. The good, the bad and the ugly (takeovers at the start, the peak, and the decline of the fifth takeover wave).**

M&A activity during the 1990s was characterized by continual increases in the number of takeovers and in the average bid value. The increase in value of intra-European takeovers grew by more than 280% over the period of 1996–99. The year 1999 was not only remarkable in terms of the total bid value (US\$ 1.3 million), but also in terms of the number of hostile acquisitions: there were 44 hostile offers compared to an average of 19 in previous years. Shelton (2000) reports that bidder gains decline during takeover peaks which suggests that bidders then tend to bid more aggressively. They also show that bidders display a greater tendency to over-pay and to undertake more risky M&As. Harford (2003) confirms that takeovers occurring at a later stage of the wave trigger lower abnormal returns to the bidder's shareholders than those at the beginning of the wave. They interpret this finding as resulting from more limited information processing, managerial hubris, and managerial self-interest. A similar decline in takeover profitability over the 1990s wave is documented in Moeller et al. (2005). They argue that their evidence supports Jensen (2004): high valuations increase managerial discretion, making it possible for executives to make poor acquisitions when they have run out of good ones.

Our sample includes 857 (35%) bids that occur in the beginning of the fifth wave (1993-96), 931 (38%) bids in the middle of the wave (1997-99), and 630 (27%) bids in the period when the M&A activity slows down (2000-01). Figure 38 shows significant differences in terms of the price reaction to bids of the three sub-periods of the takeover wave. At the announcement day, the target firms gain an average premium of 8% prior to 1997, 10% in 1997-99, and 9% in 2000-01. The differences between the three figures are statistically significant at the 1% level. The second stage of the takeover wave is also standing out in terms of the price run-up for target firms: it amounts to 13% (up from 8% observed in 1993-1996). Over longer time windows, for instance over a 6-month window symmetrically around the event day, the post-1999 bids yield lower CAARs (21%) than those in 1997-1999 (31%) and those of the pre-1997 bids (25%). From Figure 38, it is clear that the target shareholders gain most at the peak of the takeover wave, but at whose expense? Clearly, Figure 39 shows that the bidders' shareholders do not seem to realize yet that their firm may be overpaying at the peak of the takeover wave. The sum of the price run-ups and the announcement effects for takeover bids at the beginning, peak and decline of the wave are respectively: 0.19%, 1.47% and 1.12%. However, when we calculate CAARs over longer time windows (e.g. 6 months), it seems that the bidder shareholders realize that the bids may have been excessive at the peak and at the decline over the takeover wave: the CAARs amount to 0.52% (1993-96), -1.30% (1997-99) and

-9.87% (2000-01).<sup>14</sup> It should be noted that the substantial decline subsequent to the M&A peak is already corrected for the strong downward equity market movement. From the middle of 2000, the M&A climate has turned bleak and the stock market decline has made bidder shareholders very pessimistic about future synergies of the takeovers. Thus, our evidence shows that from a bidder's perspective, good M&As have turned bad (and even ugly) due to the reasons given above (e.g. managerial hubris and self-interest, herding).

[Insert about here Figures 38 and 39]

## **6. Conclusions.**

This chapter provides a comprehensive overview of the European takeover market. We examine the main features of the domestic and cross-border corporate takeovers facing European companies in 1990-2001 and contrast them to those of the takeovers of the fourth takeover wave (1984-1989). Our analysis reveals that (i) a substantial proportion of intra-European M&As in the 1990s were cross-border transactions; (ii) both cross-border and domestic M&A activity tended to occur between firms in related industries; (iii) the financial structure of takeover bids in the 1990s switched from a dominance of cash to a combination of equity, debt and cash, and – specifically for the largest transactions - to all-equity; (iv) the number of hostile bids in Continental Europe increased over the 1990s, whereas the number of hostile transactions in the UK domestic market has decreased compared to the 1980s wave. These characteristics of the M&A sample suggest that takeovers in the 1990s mainly occurred for reasons of cost cutting, expanding into new markets, or exploiting the mispricing premium.

The bulk of European M&As of the 1990s was expected to improve efficiency as they triggered substantial share price increases at the announcement, most of which were captured by the target-firm shareholders. We find large announcement effects (of 9%) for the target firms compared to a statistically significant announcement effect of merely 0.5% for the bidders. Including the price run-up, the share price reaction amounts to 21% for the targets and 0.9% for the bidders. However, we show that market expectations about takeover profitability depend on the different attributes of the bids. For instance, the type of takeover bid is an important determinant: hostile takeovers trigger substantially larger price reactions to the target shareholders (15.5% on the event day) than friendly M&As (3%). This stands in marked contrast with the share price reaction of bidding firms: a hostile acquisition triggers a negative

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<sup>14</sup> This result is unlikely to be driven by outliers, as the median value of CARs over window [-60, +60] for takeovers in 2000-2001 equals -5.4% (Q25= -24% and Q75= 21%).

abnormal return of -0.4% whereas that of a merger or friendly acquisition generates a positive abnormal return of 0.8%.

There is also strong evidence that the means of payment has a large impact on the share prices of bidder and target. All-cash offers trigger abnormal returns of almost 12% upon announcement which is significantly higher than the average returns (of 7%) in all-equity offers. All-equity bids are more frequent in large transactions and in friendly mergers and acquisitions. In the three-month period subsequent the bid announcements, deals involving equity payments are associated with substantially larger declines in bidders' share price than all-cash offers.

Domestic mergers or acquisitions trigger higher wealth effects to the target shareholders than cross-border operations. However, the premiums paid depend on the location of the target. When a UK target is involved, the abnormal returns are higher than those of bids involving a Continental European target. Further, when we partition our sample based on the legal origin of target and bidding firms, we find that target firms of French, German, and EU-accession legal origins earn the lowest abnormal return upon the bid announcement, whereas UK and Scandinavian targets earn most. The evidence suggests that the differences in level of stock market development and corporate governance regulation across countries of different legal origins have a large impact on premiums paid in takeovers.

We also show that the announcement effect for the target shareholders is significantly larger in diversifying bids than in intra-industry or focus-oriented bids. The opposite is observed for the bidding firm: the announcement of a focus strategy generates significantly higher abnormal returns than the announcement of a diversification into an unrelated business segment. This evidence suggests that bidders tend to bid more aggressively in unrelated acquisitions and hence to overpay and that diversifying acquisitions are driven by motives other than shareholder profit maximization. Acquisitions of private target firms are associated with significant positive abnormal returns to the bidders (0.8% at day 0). In contrast, acquisitions of public companies trigger negative average abnormal returns to the bidders which are insignificantly different from zero.

Finally, we demonstrate that takeovers occurring at a later stage of the takeover wave trigger lower gains to shareholders than M&As at the beginning of the wave. For both bidding and target firms, the lowest 6-month CAARs are realized in M&As that occur at the end of the wave (2000-2001) and many M&A deals undertaken in the late 1990s destroyed bidders' value. The result is similar to findings reported in recent empirical literature for US M&As (e.g. Moeller et al. 2005) and indicates that takeover waves tend to pass

their optimal stopping point. Unprofitable takeovers at the later stages of the wave result from limited information processing, hubris, and managerial self-interest.

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## Appendix A. Cumulative abnormal returns for target firms by country of their incorporation

	ALL	AUS	BEL	DEN	FIN	FRA	GER	IRE	ITA	NL	NOR	ESP	SWE	SWZ	UK	OTH <sup>*</sup>
CAAR %	8.92	2.75	-0.66	5.15	0.29	3.43	8.57	18.61	13.30	19.00	8.29	16.37	10.91	8.18	15.59	4.55
[-40, -1]																
$t_{rank}$	3.27 <sup>a</sup>	0.32	-0.11	1.37	0.03	1.40	3.17 <sup>a</sup>	1.72	2.30 <sup>b</sup>	2.57 <sup>b</sup>	2.56 <sup>b</sup>	2.86 <sup>b</sup>	3.12 <sup>a</sup>	2.44 <sup>b</sup>	11.13 <sup>a</sup>	0.38
$t_p$	2.49 <sup>b</sup>	0.49	-0.07	1.05	0.04	1.32	3.35 <sup>a</sup>	2.44 <sup>c</sup>	3.31 <sup>a</sup>	4.00 <sup>a</sup>	2.72 <sup>a</sup>	2.18 <sup>b</sup>	4.17 <sup>a</sup>	2.29 <sup>b</sup>	18.68 <sup>a</sup>	0.70
$t_{st}$	26.53 <sup>a</sup>	-0.76	0.79	1.87 <sup>c</sup>	-0.55	2.74 <sup>a</sup>	4.63 <sup>a</sup>	2.70 <sup>b</sup>	5.04 <sup>a</sup>	3.28 <sup>a</sup>	2.33 <sup>b</sup>	6.16 <sup>a</sup>	4.11 <sup>a</sup>	2.25 <sup>b</sup>	28.01 <sup>a</sup>	0.74
% Pos	69	64	60	69	25	61	70	100	71	77	65	71	70	79	72	51
CAAR %	9.01	0.29	5.52	4.28	4.36	0.82	2.00	0.50	1.04	11.47	10.77	6.39	11.52	7.87	13.90	-0.40
[T=0]																
$t_{rank}$	14.37 <sup>a</sup>	0.30	1.45	1.56	2.06	1.99 <sup>b</sup>	2.44 <sup>b</sup>	1.17	0.80	2.79 <sup>b</sup>	3.14 <sup>a</sup>	2.81 <sup>b</sup>	5.71 <sup>a</sup>	2.84 <sup>b</sup>	13.38 <sup>a</sup>	-0.19
$t_p$	9.54 <sup>a</sup>	0.32	3.53 <sup>a</sup>	5.52 <sup>a</sup>	36.80 <sup>a</sup>	1.94 <sup>c</sup>	4.87 <sup>a</sup>	0.41	1.59	14.95 <sup>a</sup>	21.95 <sup>a</sup>	5.35 <sup>a</sup>	27.60 <sup>a</sup>	13.83 <sup>a</sup>	104.62 <sup>a</sup>	-0.03
$t_{st}$	147.15 <sup>a</sup>	4.10 <sup>a</sup>	4.43 <sup>a</sup>	6.23 <sup>a</sup>	48.97 <sup>a</sup>	3.61 <sup>a</sup>	6.17 <sup>a</sup>	0.73	3.12 <sup>a</sup>	22.93 <sup>a</sup>	26.81 <sup>a</sup>	12.41 <sup>a</sup>	31.90 <sup>a</sup>	17.92 <sup>a</sup>	169.37 <sup>a</sup>	-0.11
% Pos	70	64	80	69	100	44	61	50	42	85	63	76	76	86	81	57
CAAR %	12.28	2.88	3.48	5.42	5.74	1.84	4.44	2.88	2.44	19.44	15.67	9.65	15.07	11.77	18.18	0.33
[-1, +1]																
$t_{rank}$	16.82 <sup>a</sup>	0.90	0.69	1.49	3.36 <sup>b</sup>	2.29 <sup>b</sup>	3.25 <sup>a</sup>	0.78	1.80 <sup>c</sup>	3.55 <sup>a</sup>	4.33 <sup>a</sup>	3.96 <sup>a</sup>	6.62 <sup>a</sup>	4.28 <sup>a</sup>	15.81 <sup>a</sup>	-0.35
$t_p$	7.51 <sup>a</sup>	1.86 <sup>c</sup>	1.28	4.03 <sup>a</sup>	27.32 <sup>a</sup>	2.69 <sup>a</sup>	6.29 <sup>a</sup>	2.35 <sup>c</sup>	2.16 <sup>b</sup>	14.74 <sup>a</sup>	18.45 <sup>a</sup>	4.67 <sup>a</sup>	21.04 <sup>a</sup>	11.93 <sup>a</sup>	79.01 <sup>a</sup>	0.65
$t_{st}$	114.15 <sup>a</sup>	6.72 <sup>a</sup>	3.08 <sup>b</sup>	5.53 <sup>a</sup>	34.10 <sup>a</sup>	5.94 <sup>a</sup>	8.00 <sup>a</sup>	4.24 <sup>a</sup>	2.97 <sup>a</sup>	18.88 <sup>a</sup>	21.96 <sup>a</sup>	11.27 <sup>a</sup>	24.73 <sup>a</sup>	13.67 <sup>a</sup>	125.97 <sup>a</sup>	0.45
% Pos	78	55	90	85	100	55	63	67	58	85	79	88	93	86	86	48
CAAR %	14.73	6.33	2.80	3.83	6.87	5.30	3.96	6.73	6.55	23.59	16.19	9.42	17.13	11.71	22.93	-1.24
[-5, +5]																
$t_{rank}$	10.50 <sup>a</sup>	0.95	0.30	0.79	4.17 <sup>b</sup>	3.10 <sup>a</sup>	1.40	2.25 <sup>c</sup>	2.66 <sup>b</sup>	4.42 <sup>a</sup>	4.01 <sup>a</sup>	3.24 <sup>a</sup>	6.71 <sup>a</sup>	3.28 <sup>a</sup>	17.80 <sup>a</sup>	-0.79
$t_p$	4.70 <sup>a</sup>	2.14 <sup>b</sup>	0.54	1.50	15.58 <sup>a</sup>	4.07 <sup>a</sup>	2.97 <sup>a</sup>	1.65	3.04 <sup>a</sup>	13.39 <sup>a</sup>	10.05 <sup>a</sup>	2.39 <sup>b</sup>	12.55 <sup>a</sup>	6.26 <sup>a</sup>	52.32 <sup>a</sup>	0.32
$t_{st}$	76.96 <sup>a</sup>	11.80 <sup>a</sup>	2.45 <sup>b</sup>	6.20 <sup>a</sup>	19.03 <sup>a</sup>	7.82 <sup>a</sup>	5.22 <sup>a</sup>	2.92 <sup>b</sup>	3.55 <sup>a</sup>	15.67 <sup>a</sup>	11.78 <sup>a</sup>	5.99 <sup>a</sup>	14.40 <sup>a</sup>	7.18 <sup>a</sup>	83.19 <sup>a</sup>	0.31
% Pos	79	64	70	77	100	64	66	100	71	92	72	82	85	79	89	45
CAAR %	18.01	4.81	2.58	20.01	4.79	14.62	6.67	37.63	3.17	37.72	27.29	35.52	22.29	18.00	38.59	-2.34
[-60, +60]																
$t_{rank}$	2.03 <sup>b</sup>	0.54	0.11	3.98 <sup>a</sup>	3.10 <sup>b</sup>	1.93 <sup>c</sup>	1.46	2.15 <sup>c</sup>	0.31	3.79 <sup>a</sup>	4.36 <sup>a</sup>	2.86 <sup>b</sup>	3.33 <sup>a</sup>	2.76 <sup>b</sup>	16.79 <sup>a</sup>	-6.61 <sup>a</sup>
$t_p$	1.73 <sup>c</sup>	0.49	0.15	2.35 <sup>b</sup>	3.39 <sup>b</sup>	3.24 <sup>a</sup>	1.50	2.83 <sup>b</sup>	0.45	5.73 <sup>a</sup>	5.12 <sup>a</sup>	2.75 <sup>b</sup>	4.91 <sup>a</sup>	2.91 <sup>b</sup>	26.60 <sup>a</sup>	-0.27
$t_{st}$	38.17 <sup>a</sup>	0.49	2.52 <sup>b</sup>	6.15 <sup>a</sup>	3.45 <sup>b</sup>	6.29 <sup>a</sup>	1.69 <sup>c</sup>	4.07 <sup>a</sup>	1.60	5.31 <sup>a</sup>	6.06 <sup>a</sup>	7.05 <sup>a</sup>	5.18 <sup>a</sup>	3.09 <sup>a</sup>	41.23 <sup>a</sup>	-0.11
% Pos	76	64	60	92	100	65	55	67	63	77	70	76	72	79	87	45
No. of obs.	760	11	10	13	4	105	56	6	24	13	43	17	54	14	357	27

OTH<sup>\*</sup> = Bulgaria, Croatia, Czech republic, ZR, Cyprus, Estonia, Hungary, Latvia, Lithuania, Romania, Slovakia

; a/b/c - statistical significance at 1%/5%/10%, respectively.

**Appendix B. Cumulative abnormal returns for bidding firms by country of incorporation**

	ALL	AUS	BEL	DEN	FIN	FRA	GER	IRE	ITA	LUX	NL	NOR	POR	ESP	SWE	SWZ	UK	OTH <sup>*</sup>
CAAR %	0.88	3.53	1.15	-3.04	0.12	0.51	-2.72	6.33	4.59	14.49	4.17	4.44	12.92	4.21	2.56	2.32	0.37	-11.06
[-40, -1]																		
$t_{rank}$	1.59	1.19	0.70	-1.57	1.12	-0.52	-1.29	2.18 <sup>b</sup>	2.39 <sup>b</sup>	2.06	1.05	1.75 <sup>c</sup>	0.52	1.30	1.99 <sup>b</sup>	0.93	0.96	-0.30
$t_p$	1.65 <sup>c</sup>	1.97 <sup>c</sup>	0.69	-1.22	1.45	-0.46	-1.21	2.62 <sup>b</sup>	2.44 <sup>b</sup>	1.77	1.09	2.10 <sup>b</sup>	1.16	2.30 <sup>b</sup>	2.59 <sup>a</sup>	1.28	1.34	-0.34
$t_{st}$	3.87 <sup>a</sup>	1.40	2.05 <sup>b</sup>	-1.76 <sup>c</sup>	1.17	-1.09	-0.70	4.38 <sup>a</sup>	3.27 <sup>a</sup>	1.79	1.63	1.78 <sup>c</sup>	0.36	-0.20	2.46 <sup>b</sup>	2.60 <sup>b</sup>	4.16 <sup>a</sup>	-3.00 <sup>a</sup>
% $Pos$	50	43	57	42	49	45	44	67	67	100	57	61	50	63	54	56	49	40
CAAR %	0.51	1.28	0.23	0.75	2.51	0.02	0.75	-0.14	0.70	1.70	-0.68	0.77	0.44	0.60	1.06	-0.11	0.37	1.07
[T=0]																		
$t_{rank}$	4.79 <sup>a</sup>	1.23	0.80	2.23 <sup>b</sup>	2.78 <sup>a</sup>	0.07	2.52 <sup>b</sup>	-0.61	1.19	1.29	-1.07	1.14	0.29	1.42	1.91 <sup>c</sup>	-0.19	2.33 <sup>b</sup>	0.00
$t_p$	6.12 <sup>a</sup>	3.35 <sup>a</sup>	0.52	2.56 <sup>b</sup>	7.97 <sup>a</sup>	0.05	3.40 <sup>a</sup>	-0.32	1.96 <sup>c</sup>	1.19	-1.36	2.02 <sup>b</sup>	0.24	1.84	4.48 <sup>a</sup>	-0.36	4.10 <sup>a</sup>	0.30
$t_{st}$	12.55 <sup>a</sup>	1.82 <sup>c</sup>	0.55	2.98 <sup>a</sup>	8.93 <sup>a</sup>	1.15	5.47 <sup>a</sup>	-0.59	1.32	1.17	-0.86	2.37 <sup>b</sup>	-0.11	2.41	3.83 <sup>a</sup>	2.09 <sup>b</sup>	8.31 <sup>a</sup>	0.37
% $Pos$	50	55	49	54	62	47	56	56	47	67	48	57	50	51	49	53	48	53
CAAR %	0.74	0.96	1.11	0.90	3.78	0.60	0.73	3.16	1.38	-0.02	0.19	0.58	1.50	0.80	1.18	0.44	0.39	-1.78
[-1, +1]																		
$t_{rank}$	4.51 <sup>a</sup>	0.83	1.31	1.58	2.60 <sup>b</sup>	1.41	1.80 <sup>c</sup>	1.58	2.13 <sup>b</sup>	-0.03	0.19	0.71	2.82	0.79	1.84 <sup>c</sup>	0.62	1.53	-0.32
$t_p$	5.16 <sup>a</sup>	1.45	1.45	1.77 <sup>c</sup>	6.93 <sup>a</sup>	0.97	1.92 <sup>c</sup>	4.26 <sup>a</sup>	2.24 <sup>b</sup>	-0.01	0.22	0.88	0.48	1.41	2.88 <sup>a</sup>	0.86	2.46 <sup>b</sup>	-0.14
$t_{st}$	15.04 <sup>a</sup>	0.12	1.27	2.69 <sup>a</sup>	8.27 <sup>a</sup>	3.47 <sup>a</sup>	2.97 <sup>a</sup>	3.00 <sup>a</sup>	2.37 <sup>b</sup>	-0.02	0.81	-0.33	0.52	1.50	2.74 <sup>a</sup>	2.60 <sup>b</sup>	6.49 <sup>a</sup>	-1.10
% $Pos$	51	45	51	54	58	48	55	56	55	67	52	43	1.00	53	53	47	50	47
CAAR %	0.74	4.83	3.03	0.10	2.16	0.42	0.13	5.58	0.55	9.55	2.22	1.40	-0.84	0.49	1.52	0.59	0.52	-4.91
[-5, +5]																		
$t_{rank}$	2.84 <sup>a</sup>	2.14 <sup>b</sup>	1.97 <sup>c</sup>	0.12	1.34	0.45	0.20	1.74	0.52	3.60	1.14	1.17	-0.36	0.31	1.84 <sup>c</sup>	0.62	1.41	-0.82
$t_p$	2.67 <sup>a</sup>	3.82 <sup>a</sup>	2.06 <sup>b</sup>	0.10	2.07 <sup>b</sup>	0.36	0.18	3.92 <sup>a</sup>	0.47	2.01	1.34	1.11	-0.14	0.45	1.95 <sup>c</sup>	0.60	1.73 <sup>c</sup>	-0.57
$t_{st}$	6.74 <sup>a</sup>	2.77 <sup>a</sup>	2.63 <sup>b</sup>	-0.04	2.62 <sup>a</sup>	-1.40	1.63	3.55 <sup>a</sup>	0.58	2.10	2.14 <sup>b</sup>	0.82	-0.38	0.35	1.73 <sup>c</sup>	1.68 <sup>c</sup>	4.76 <sup>a</sup>	-1.30
% $Pos$	51	58	62	46	54	54	51	67	45	100	48	49	50	55	57	47	49	38
CAAR %	-2.94	3.96	2.80	-2.16	2.64	-8.27	-7.79	1.77	5.04	30.56	8.81	-1.23	22.23	10.13	-2.39	-5.83	-0.97	-18.64
[-60, +60]																		
$t_{rank}$	-2.45 <sup>b</sup>	0.58	0.42	-0.64	0.46	-2.03 <sup>b</sup>	-2.29 <sup>b</sup>	0.29	1.14	1.14	1.01	-0.23	0.44	2.15 <sup>b</sup>	-0.62	-0.99	-0.55	-0.95
$t_p$	-3.21 <sup>a</sup>	0.94	0.57	-0.67	0.76	-2.10 <sup>b</sup>	-3.20 <sup>a</sup>	0.38	1.29	1.94	1.60	-0.29	1.12	2.82 <sup>a</sup>	-0.92	-1.78 <sup>c</sup>	-0.97	-1.68 <sup>c</sup>
$t_{st}$	2.42 <sup>b</sup>	0.31	2.05 <sup>b</sup>	-1.54	1.18	-2.64 <sup>a</sup>	-0.50	0.28	2.06 <sup>b</sup>	1.88	2.41 <sup>b</sup>	-0.65	0.15	2.85 <sup>a</sup>	0.32	-0.51	-4.15 <sup>a</sup>	-1.00
% $Pos$	50	50	68	44	48	48	49	50	53	67	57	50	50	63	48	44	50	34
No. of obs.	2194	40	47	50	84	305	243	36	49	3	21	76	2	49	157	55	917	60

OTH<sup>\*</sup> = = Bulgaria, Croatia, Czech republic, ZR, Cyprus, Estonia, Hungary, Latvia, Lithuania, Romania, Slovakia

a/b/c - statistical significance at 1%/5%/10%, respectively.

**Table 1. Intra-industry takeovers as a percentage of total number of cross-border and domestic European M&As**

*This table shows the percentage of intra-industry M&As based on the total number of all European takeover announcements within each industry during 1993-2001. An acquisition is classified as an intra-industry takeover if both bidding and target firms operate in the same industry (bidder's and target's 2-digit SIC codes are the same). The sample is partitioned into domestic and cross-border acquisitions.*

	Cross-border bids, %	Domestic bids, %
Media and Entertainment	79.4	78.9
Consumer Staples	76.6	76.5
High Technology	72.4	71.9
Real Estate	72.4	75.0
Industrials	70.6	68.2
Materials	69.3	63.2
Healthcare	67.7	70.2
Retail	66.3	71.4
Energy and Power	65.0	65.0
Consumer Products and Services	62.0	62.5
Telecommunications	48.0	41.3
Financials	45.9	27.7

**Table 2. Sample composition (number of bids).**

Table shows the number of all the takeover announcements in our sample and partitions this sample in several ways: (i) domestic and cross-border deals; (ii) acquisition of 100% control and acquisition of majority interest (iii) friendly M&As (excluding tender offers), unopposed tender offers, and hostile bids; (iv) completed, pending, and withdrawn bids (v) private and public target firm legal status; (vi) diversification and focus acquisition strategy (vii) and all-cash, all-equity, or mixed cash, equity, and debt payment structure in takeovers.

	1993	1994	1995	1996	1997	1998	1999	2000	2001	1993-2001	%
Total sample	171	229	228	229	229	292	411	408	222	2,419	100.0
Domestic bid	131	171	159	168	160	193	280	269	150	1,681	69.5
Cross-border bid	40	58	69	61	69	99	131	139	72	738	30.5
Merger/acquisition of 100%	95	124	138	144	138	110	153	170	88	1,451	60.0
Acquisition of voting majority	76	105	90	85	91	182	258	238	134	968	40.0
Hostile bid	13	13	23	12	17	18	32	27	7	162	6.7
Friendly M&A	158	216	205	217	212	274	379	381	215	2,257	93.3
Of which: tender offers	23	31	43	39	56	68	97	76	40	473	19.6
Completed bid	129	177	186	189	191	251	344	312	162	1,941	80.2
Pending bid	21	27	19	27	11	20	37	68	41	271	11.2
Withdrawn bid	21	25	23	13	27	21	30	28	19	207	8.6
Private target	118	160	143	167	142	181	224	256	139	1,530	63.2
Listed target	53	69	85	62	87	111	187	152	83	889	36.8
Diversification	59	99	83	98	76	85	132	147	82	861	35.6
Industry focus	112	130	145	131	153	207	279	261	140	1,558	64.4
All-cash bid	48	74	84	91	100	112	177	165	87	938	38.8
All-equity bid	33	36	31	26	41	30	60	61	31	349	14.4
Mixed bid	45	37	45	53	32	52	68	60	42	434	17.9
Undisclosed payment	45	82	68	59	56	98	106	122	62	698	28.9

**Table 3. Average value of takeover transactions by year of bid announcement (US\$ million)**

*Table reports average value of takeover bids across different categories of our sample: (i) domestic and cross-border deals; (ii) acquisition of 100% control and acquisition of majority interest (iii) friendly M&As (excluding tender offers), unopposed tender offers, and hostile bids; (iv) private and public target firm legal status; (v) completed, pending, and withdrawn bids (vi) diversification and focus acquisition strategy (vii) and all-cash, all-equity, or mixed cash, equity, and debt payment structure in takeovers.*

	1993	1994	1995	1996	1997	1998	1999	2000	2001	1993-2001
Total sample	83.1	76.5	178.6	394.8	206.9	494.0	1,726.5	426.9	267.2	556.3
Domestic bids	73.5	68.6	196.9	436.2	158.9	271.3	855.9	311.4	166.3	336.7
Cross-border bids	131.6	105.4	119.0	198.9	381.3	1,046.7	3,959.0	683.1	537.8	1,210.2
Acquisition of 100%	77.6	89.7	219.6	468.3	208.7	552.6	1,965.7	444.1	264.1	624.3
Acquis. of major interest	97.0	45.1	45.7	103.3	201.1	302.4	1,002.2	376.7	275.6	350.4
Mergers and Acquisitions	33.1	24.7	21.5	389.9	161.3	310.8	625.4	166.7	218.6	250.2
Tender offers	233.6	121.9	260.4	298.6	110.0	762.6	846.9	735.3	359.2	517.9
Hostile bids	154.1	359.3	652.7	739.3	777.6	579.9	10,840.3	1,103.4	414.5	2,502.9
Private target	24.9	23.4	36.4	62.6	86.2	34.5	118.3	197.0	32.9	77.9
Listed target	201.2	164.7	361.3	931.4	332.5	925.1	2,878.1	647.9	522.4	1,081.2
Diversification	70.7	25.5	190.9	605.4	100.1	819.3	200.8	254.7	106.9	270.5
Industry focus	91.6	115.4	172.4	217.9	257.6	385.6	2,343.0	515.1	350.8	703.8
All-cash bids	61.8	87.9	86.1	200.8	256.3	196.9	340.1	293.5	249.6	227.7
All-equity bids	157.3	130.1	120.4	1,753.1	242.2	2,352.9	2,881.5	919.2	36.3	1,136.0
Mixed bids	70.6	17.1	365.2	159.6	35.1	110.2	4,251.6	374.8	409.8	850.8

**Table 4. Sample composition by countries of bidding and target firms.**

*Table shows the number of all the takeover announcements in our sample by country and partitions this sample in several ways: (i) by domestic and cross-border deals, (ii) by friendly M&As (excluding tender offers), unopposed tender offers, and hostile bids, (iii) and by target and by bidder country.*

		Domestic deals					Cross-border deals, Classification by bidder country					Cross-border deals, Classification by target country				
		All	% by country	Friendly M&A	Tender Offer	Hostile bid	All	% by country	Friendly M&A	Tender Offer	Hostile bid	All	% by country	Friendly M&A	Tender Offer	Hostile bid
1	Austria	11	0.7%	11	0	0	31	4.2%	30	1	0	20	2.7%	16	1	3
2	Belgium	23	1.4%	22	1	0	34	4.6%	28	5	1	14	1.9%	11	3	0
3	Bulgaria	0	0.0%	0	0	0	0	0.0%	0	0	0	2	0.3%	2	0	0
4	Croatia	0	0.0%	0	0	0	1	0.1%	1	0	0	6	0.8%	6	0	0
5	Cyprus	3	0.2%	3	0	0	2	0.3%	1	1	0	0	0.0%	0	0	0
6	Czech Rep.	9	0.5%	8	1	0	1	0.1%	1	0	0	25	3.4%	25	0	0
7	Denmark	30	1.8%	21	3	6	32	4.3%	25	6	1	21	2.8%	16	4	1
8	Estonia	0	0.0%	0	0	0	0	0.0%	0	0	0	13	1.8%	13	0	0
9	Finland	53	3.2%	52	0	1	32	4.3%	29	2	1	20	2.7%	19	0	1
10	France	219	13.0%	176	30	13	111	15.0%	92	10	9	89	12.0%	81	7	1
11	Germany	175	10.4%	165	8	2	89	12.0%	71	14	4	94	12.7%	91	2	1
13	Hungary	4	0.2%	4	0	0	5	0.7%	5	0	0	3	0.4%	3	0	0
14	Ireland	11	0.7%	6	4	1	27	3.6%	18	7	2	16	2.2%	10	5	1
15	Italy	39	2.3%	32	4	3	28	3.8%	24	3	1	44	5.9%	43	0	1
16	Latvia	0	0.0%	0	0	0	1	0.1%	1	0	0	4	0.5%	4	0	0
17	Lithuania	1	0.1%	1	0	0	0	0.0%	0	0	0	6	0.8%	5	1	0
18	Luxemburg	0	0.0%	0	0	0	7	0.9%	6	1	0	5	0.7%	4	1	0
19	Netherlands	2	0.1%	1	1	0	27	3.6%	16	10	1	45	6.1%	37	7	1
20	Norway	58	3.5%	44	9	5	32	4.3%	29	1	2	37	5.0%	23	7	7
21	Poland	22	1.3%	22	0	0	0	0.0%	0	0	0	37	5.0%	34	3	0
22	Portugal	1	0.1%	1	0	0	1	0.1%	1	0	0	11	1.5%	10	1	0
23	Romania	2	0.1%	2	0	0	0	0.0%	0	0	0	11	1.5%	11	0	0
24	Russia	10	0.6%	10	0	0	3	0.4%	3	0	0	10	1.4%	9	1	0
25	Slovenia	0	0.0%	0	0	0	0	0.0%	0	0	0	4	0.5%	2	2	0
26	Spain	46	2.7%	33	6	7	9	1.2%	4	5	0	33	4.5%	30	3	0
27	Sweden	102	6.1%	62	29	11	69	9.3%	59	7	3	48	6.5%	38	10	0
28	Switzerland	22	1.3%	19	1	2	39	5.3%	26	10	3	28	3.8%	22	4	2
29	UK	838	49.9%	485	274	79	159	21.5%	136	19	4	94	12.7%	41	40	13
Total		1681	100.0%	1180	371	130	740	100.0%	606	102	32	740	100.0%	606	102	32

**Table 5. Cumulative average abnormal returns for target and bidding firms.**

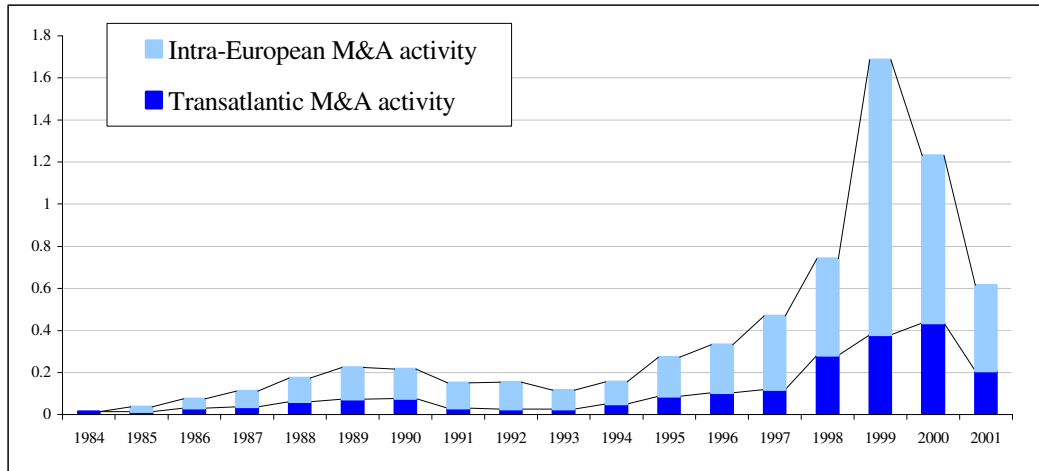
Table reports average values of CAARs for bidding and target firms for 5 different event windows.  $T=0$  stands for the day of the bid announcement. Abnormal returns are computed as the difference between realized and market model benchmark returns. For each firm we calculate daily benchmark returns using MSCI-Europe index returns and the market model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement and ending 60 days prior to the announcement. Two parametric tests (Brown and Warner, 1985) and one non-parametric test (Corrado, 1989) are used to assess the significance of the CAARs. ‘% Positive’ is a percentage of takeover announcements with a positive CAR in our sample. a/b/c - statistical significance at 1%/5%/10%, respectively.

Event window	Bidding firms					Target firms				
	[-40, -1]	[T=0]	[-1, +1]	[-5, +5]	[-60, +60]	[-40, -1]	[T=0]	[-1, +1]	[-5, +5]	[-60, +60]
CAAR (%)	0.39	0.53	0.72	0.79	-2.83	11.49	9.13	12.47	15.83	26.70
Whole sample										
$t_{rank}$	0.76	4.90 <sup>a</sup>	4.28 <sup>a</sup>	3.19 <sup>a</sup>	-2.48 <sup>b</sup>	4.54 <sup>a</sup>	15.41 <sup>a</sup>	16.94 <sup>a</sup>	12.36 <sup>a</sup>	6.67 <sup>a</sup>
$t_p$	0.83	7.19 <sup>a</sup>	5.63 <sup>a</sup>	3.21 <sup>a</sup>	-3.18 <sup>a</sup>	3.28 <sup>a</sup>	9.97 <sup>a</sup>	7.53 <sup>a</sup>	6.10 <sup>a</sup>	12.44 <sup>a</sup>
$t_{st}$	1.27	12.33 <sup>a</sup>	14.37 <sup>a</sup>	6.26 <sup>a</sup>	1.96 <sup>b</sup>	28.93 <sup>a</sup>	150.01 <sup>a</sup>	115.05 <sup>a</sup>	78.68 <sup>a</sup>	62.57 <sup>a</sup>
% Positive	48	50	50	51	50	69	70	78	79	76
No. of obs.	2109					760				



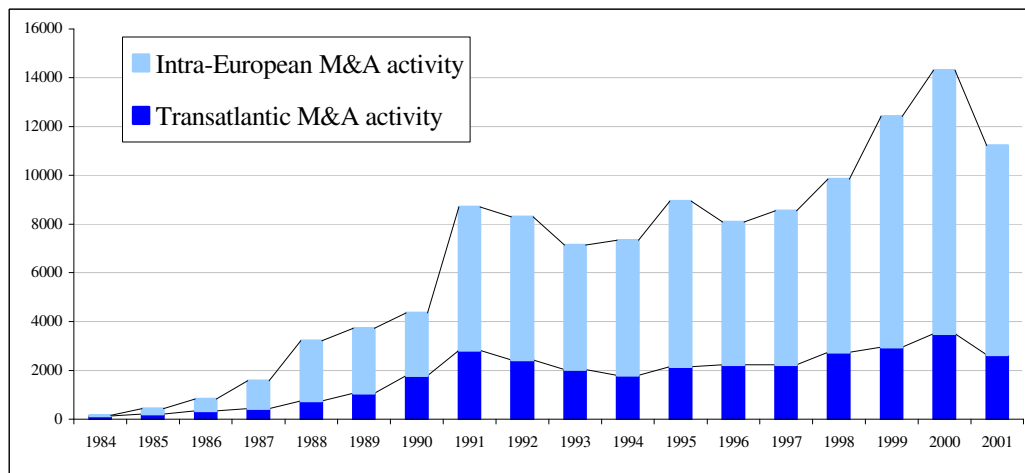
**Figure 1. European takeover activity, total value of deals (in US\$ trillion).**

*Source: Thomson Financial Securities Data*



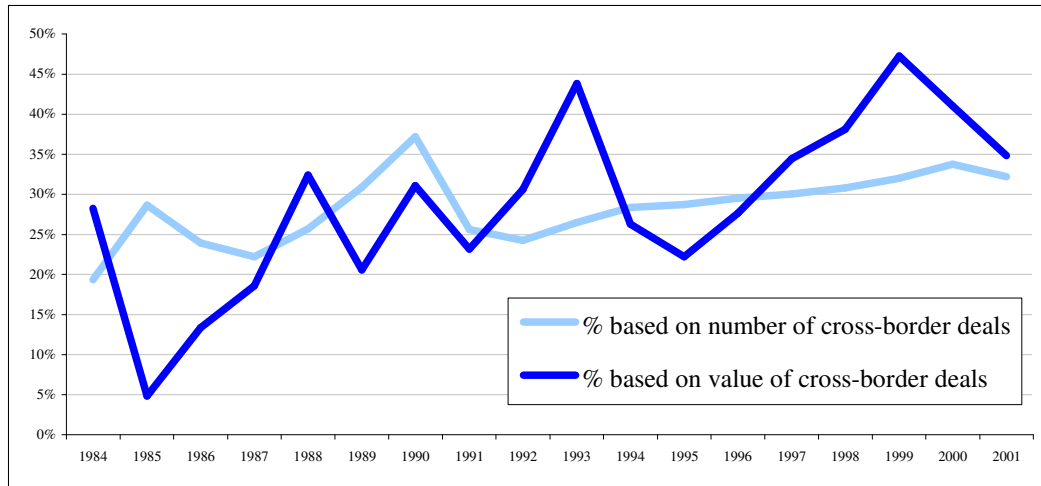
**Figure 2. European takeover activity: the total number of deals.**

*Source: Thomson Financial Securities Data*



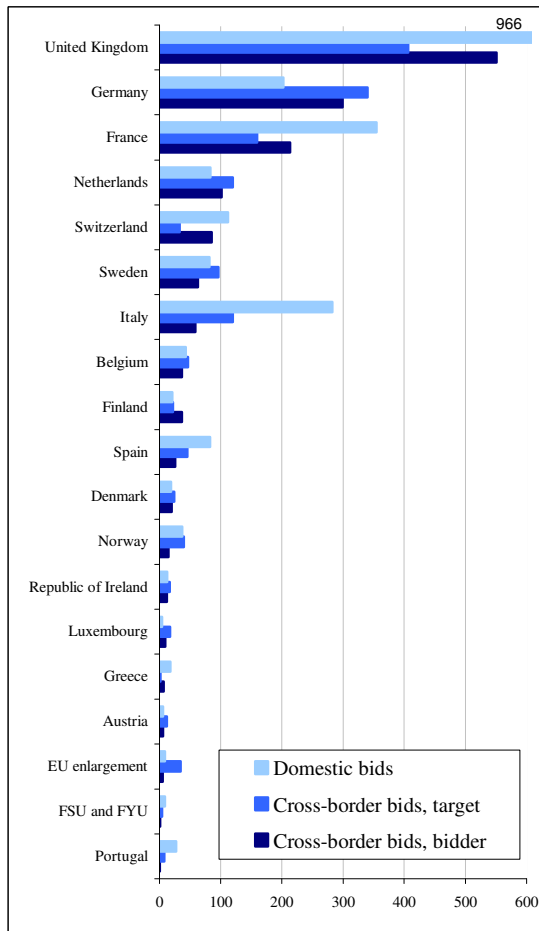
**Figure 3. Cross-border acquisitions as a percentage of all intra-European deals.**

*Source: Thomson Financial Securities Data*



## Mergers and Acquisitions in Europe

Figure 4. Total value of M&As during 1993-2001 by country of bidding and target firms (US\$ million).



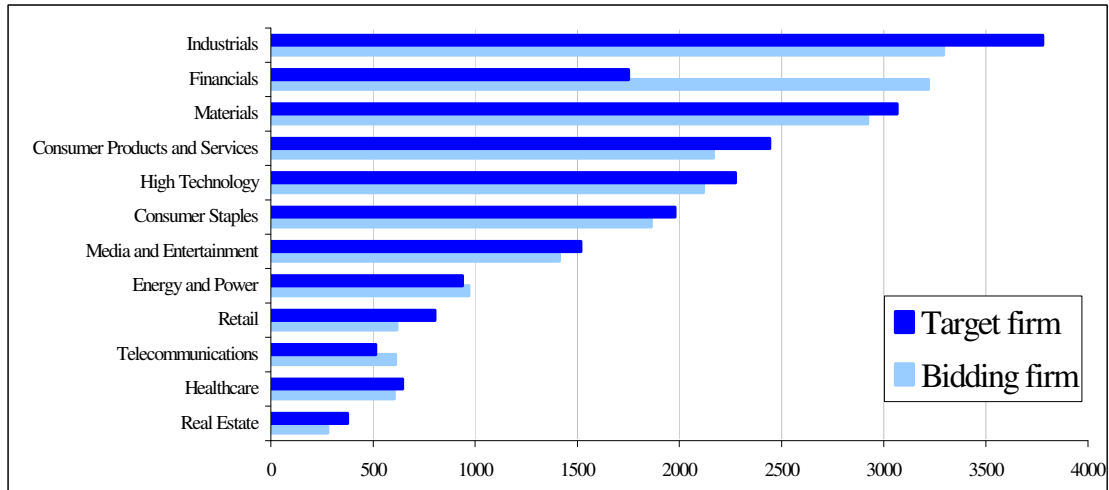
Source: Thomson Financial Securities Data

Figure 5. Total number of M&As during 1993-2001 by country of bidding and target firms.

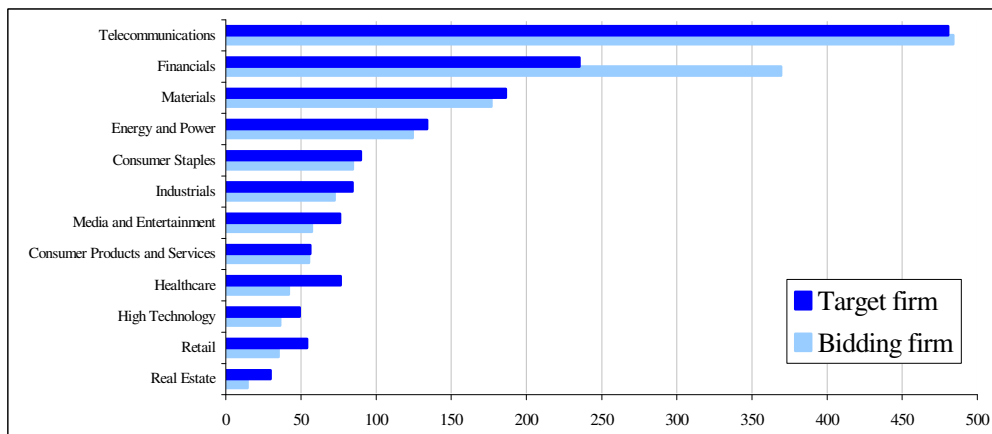


**Figure 6. Total number of cross-border M&As during 1993-2001 by primary industry.**

*Source: Thomson Financial Securities Data*

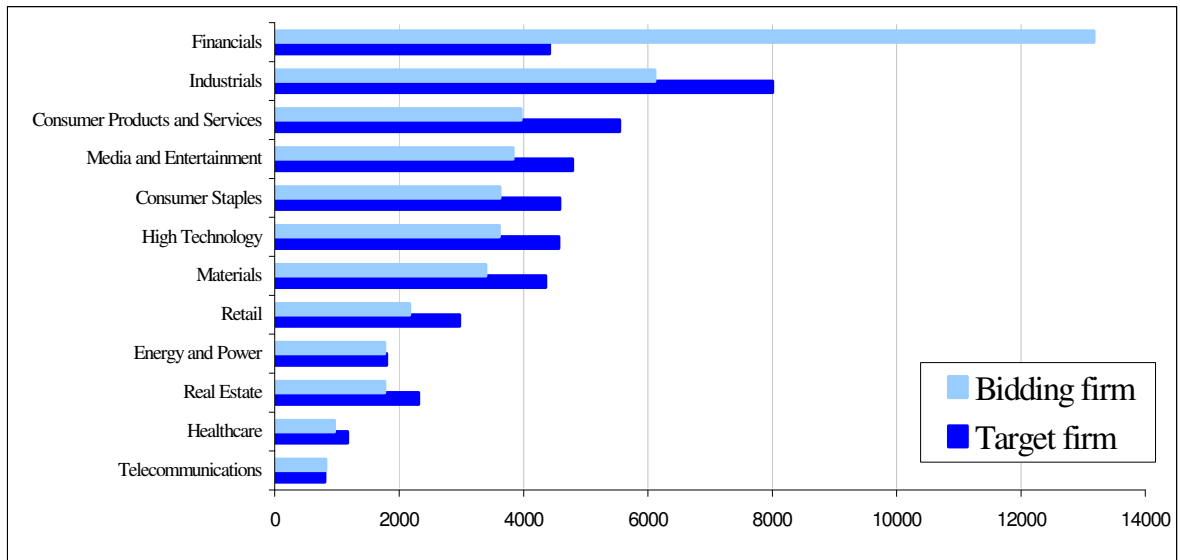


**Figure 7. Total value of cross-border M&As during 1993-2001 by primary industry.**



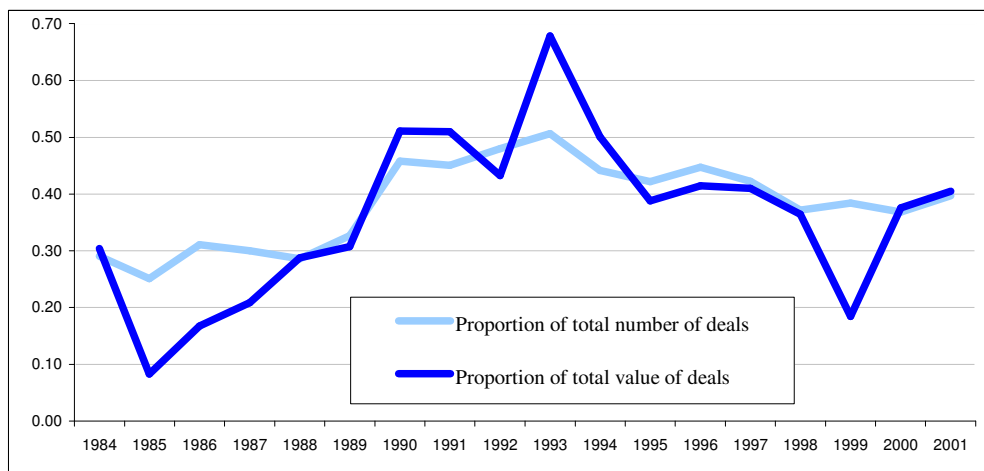
**Figure 8. Total number of domestic M&As during 1993-2001 by primary industry.**

*Source: Thomson Financial Securities Data*



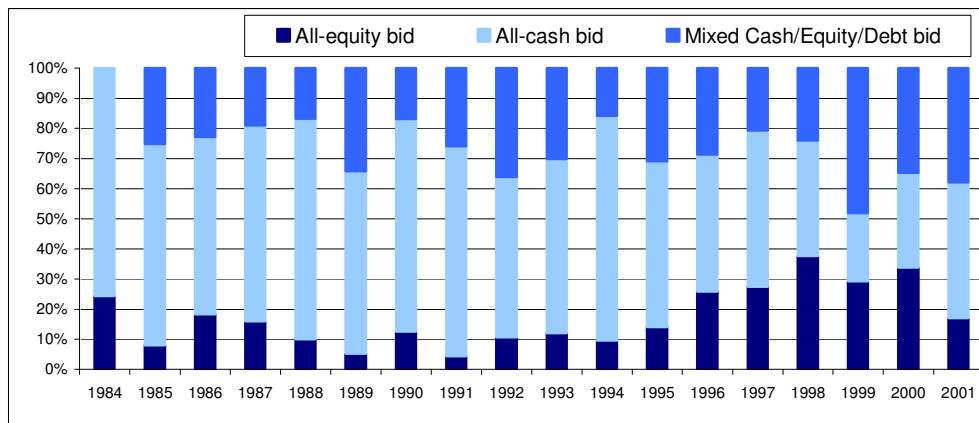
**Figure 9. Proportion of divestitures in total M&A activity.**

*Source: Thomson Financial Securities Data*



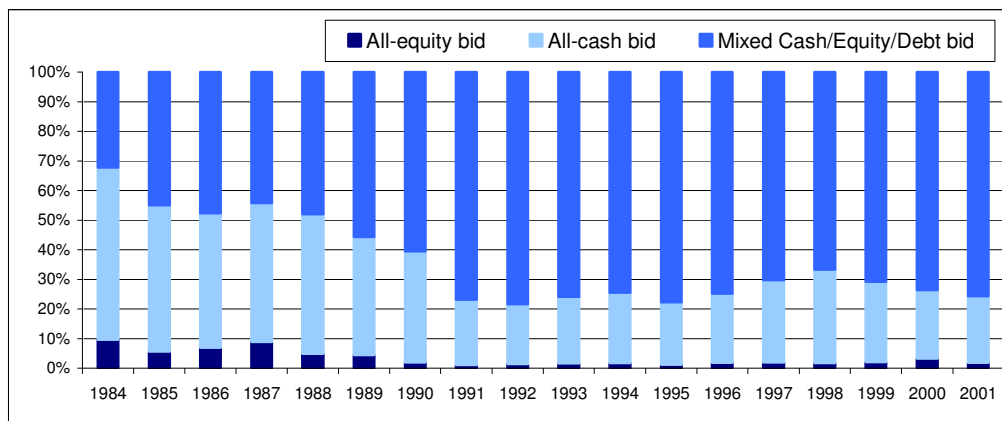
**Figure 10. Percentage of all-cash, all-equity, and mixed bids (based on total value of European M&A activity).**

*Source: Thomson Financial Securities Data*



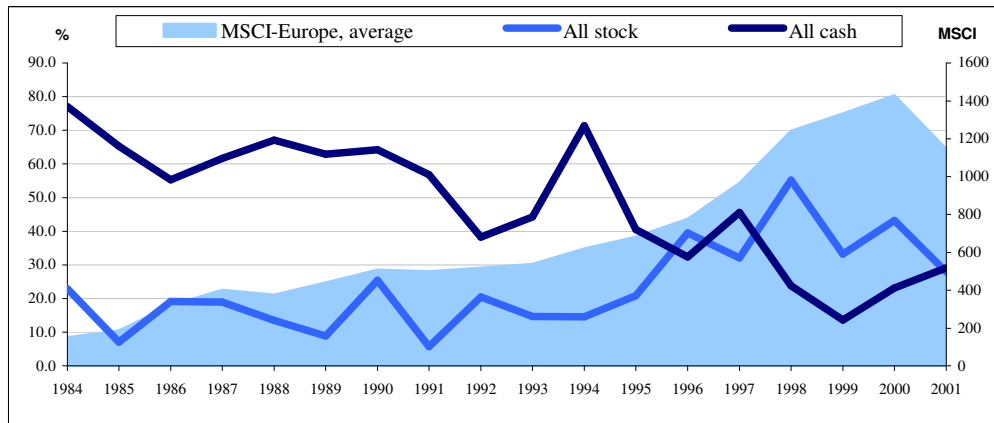
**Figure 11. Percentage of all-cash, all-equity, and mixed bids (based on total number of European M&As).**

*Source: Thomson Financial Securities Data*



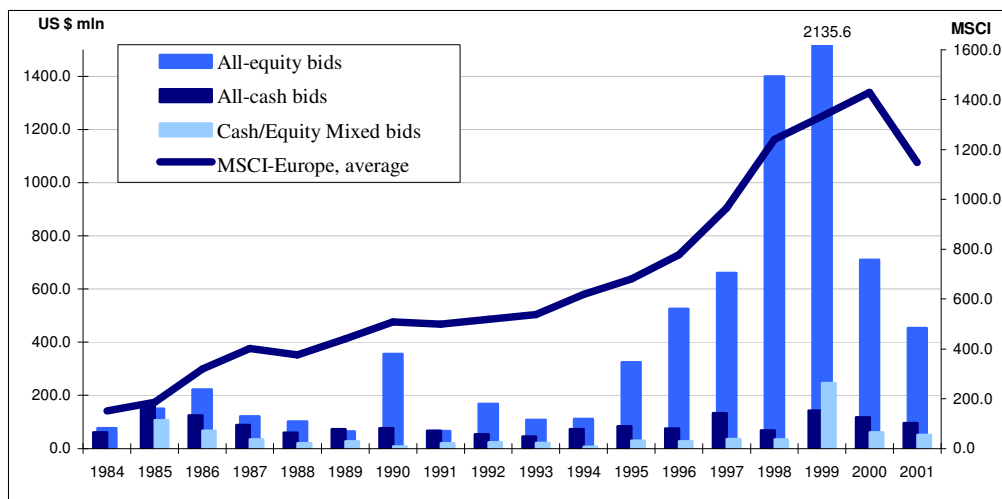
**Figure 12. Percentage of all-cash and all-equity bids (based on total value of M&As).**

Source: Thomson Financial Securities Data and DataStream



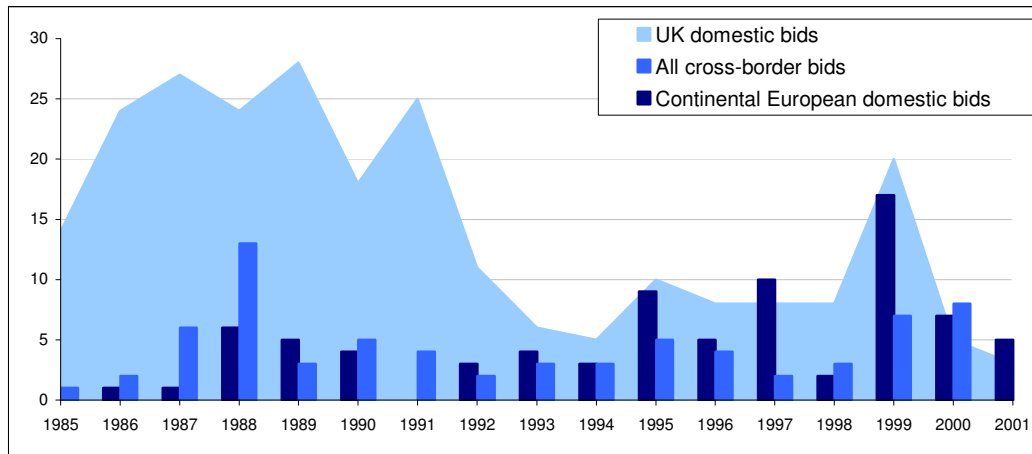
**Figure 13. Average value of all-cash, all-equity, and mixed bids initiated by listed bidders.**

Source: Thomson Financial Securities Data and DataStream



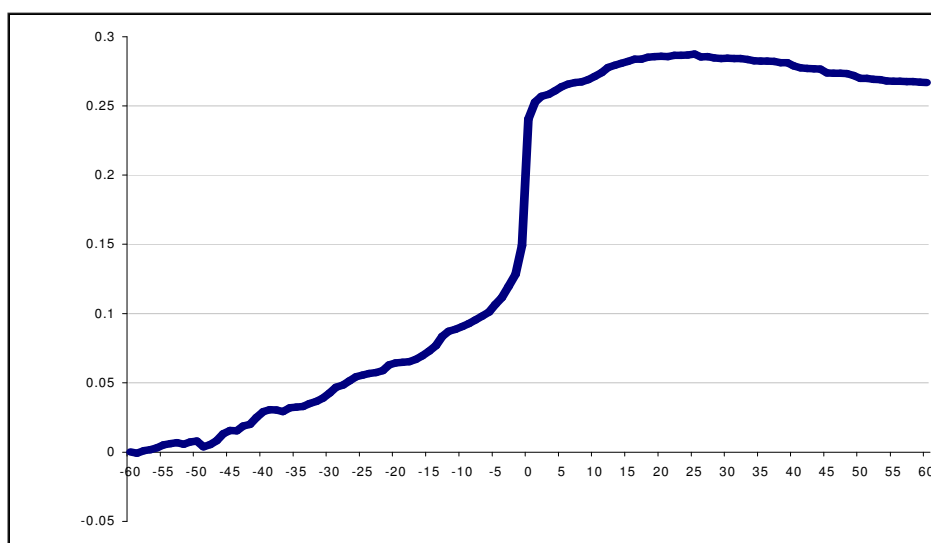
**Figure 14. The number of European hostile takeovers.**

*Source: Thomson Financial Securities Data*



**Figure 15. Target CAARs around the M&A announcement.**

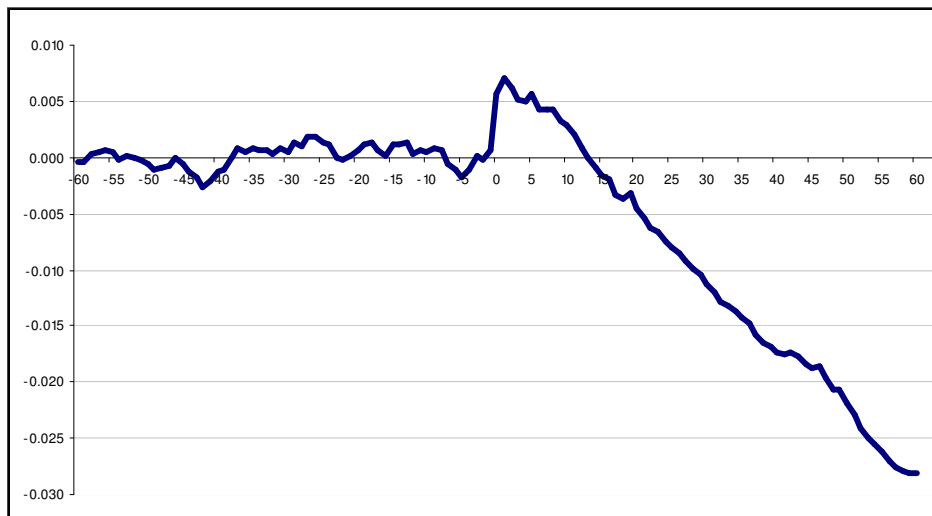
*This figure shows the market reaction to the announcement of M&A transactions for target firms as well as the CAARs before and after the event (day 0). The benchmark used in the market model is the MSCI-Europe index returns; the model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.*





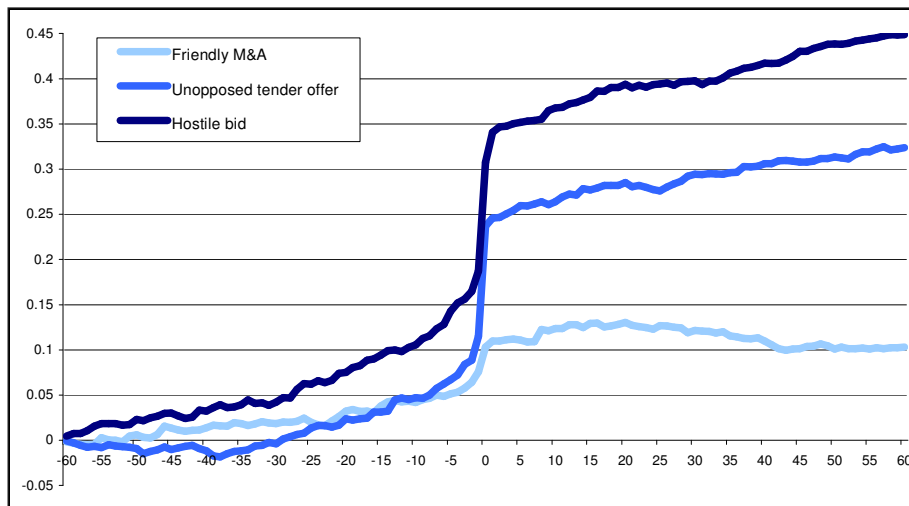
**Figure 16. Bidder CAARs around the M&A announcement.**

*This figure shows the market reaction to the announcement of M&A transactions for bidding firms as well as the CAARs before and after the event (day 0). The benchmark used in the market model is the MSCI-Europe index returns; the model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.*



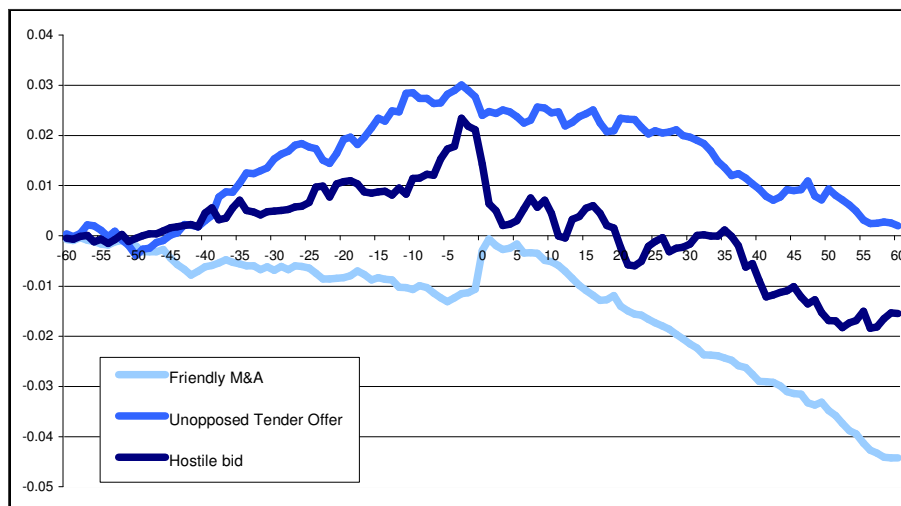
**Figure 17. Target CAARs by bid attitude (friendly vs. hostile) and by form of the bid (tender offer vs. negotiated M&As).**

*This figure shows the evolution of the market reaction to the announcement of M&A transactions for target firms by bid attitude and by form of the bid. The sample of hostile acquisitions includes deals in which the target firm's board opposes the takeover and deals in which a competing bidder was present. The day of the bid announcement is day 0. Abnormal returns are computed as the difference between realized and market model benchmark returns. For each firm we calculate daily benchmark returns using MSCI-Europe index returns and market model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.*



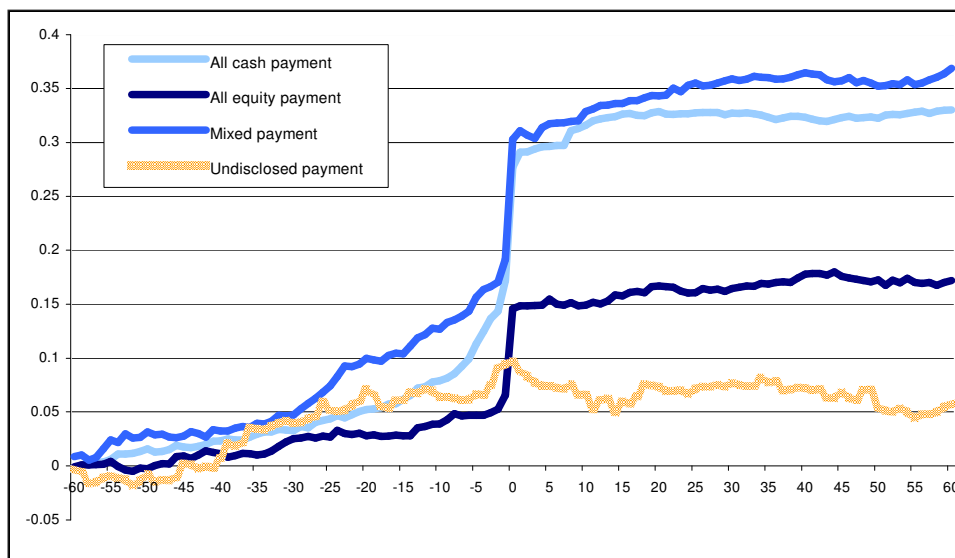
**Figure 18. Bidder CAARs by bid attitude (friendly vs. hostile) and by form of the bid (tender offer vs. negotiated M&As).**

*This figure shows the evolution of the market reaction to the announcement of M&A transactions for bidding firms by bid attitude and by form of the bid. The sample of hostile acquisitions includes deals in which the target firm's board opposes the takeover and deals in which a competing bidder was present. The day of the bid announcement is day 0. Abnormal returns are computed as the difference between realized and market model benchmark returns. For each firm we calculate daily benchmark returns using MSCI-Europe index returns and market model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.*



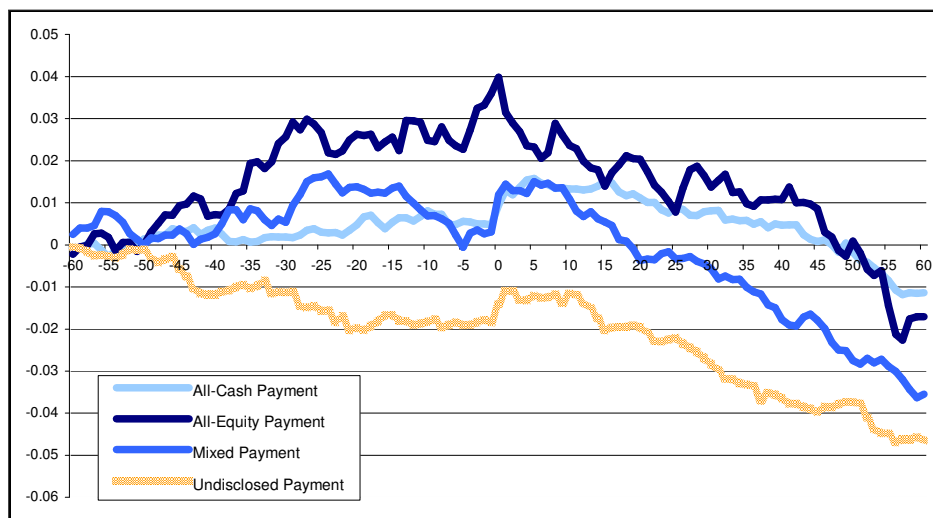
**Figure 19. Target CAARs by means of payment.**

*This figure shows the market reaction to the announcement of M&A transactions for target firms by means of payment employed in the transaction: all-cash, all-equity, and mixed cash, equity, or offers of which the payment was not disclosed (and remains unknown to date). The day of the announcement is day 0. Abnormal returns are computed as the difference between the realized and market model benchmark returns. For each firm we calculate the daily benchmark returns using MSCI-Europe index returns and the market model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.*



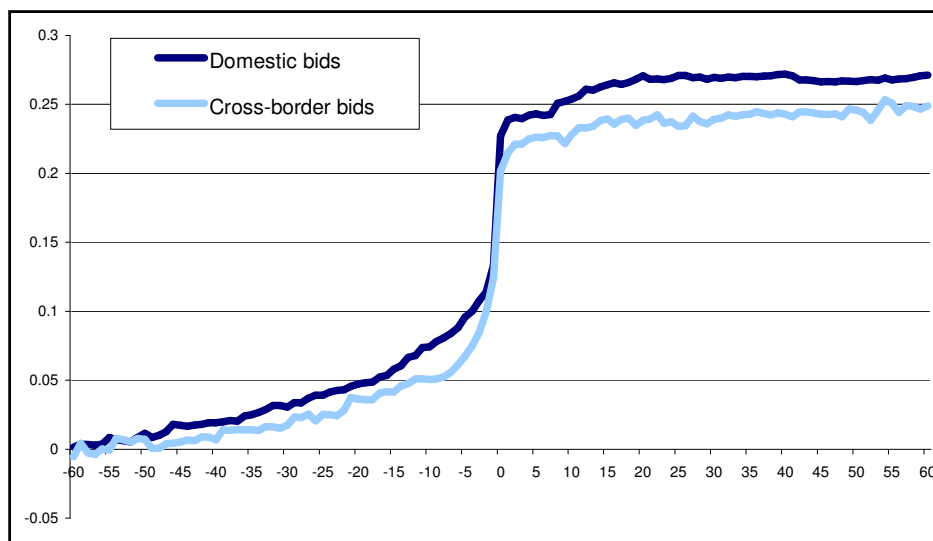
**Figure 20. Bidder CAARs by means of payment.**

*This figure shows the market reaction to the announcement of M&A transactions for bidder firms by means of payment employed in the transaction: all-cash, all-equity, and mixed cash, equity, or offers of which the payment was not disclosed (and remains unknown to date). The day of the announcement is day 0. Abnormal returns are computed as the difference between the realized and market model benchmark returns. For each firm we calculate daily benchmark returns using MSCI-Europe index returns and the market model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.*



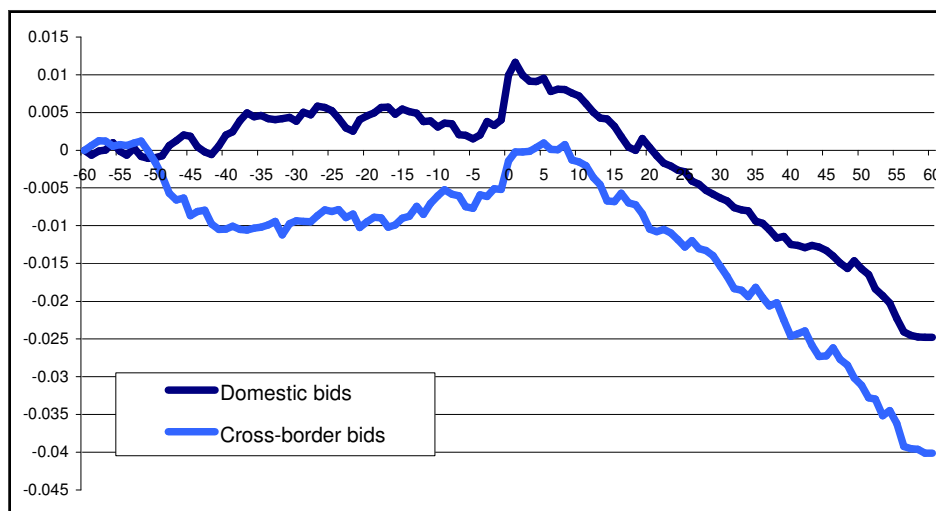
**Figure 21. Target CAARs in domestic and cross border bids.**

*This figure shows the market reaction to the announcement of domestic and cross-border M&A transactions for target firms. The day of the bid announcement is day 0. Abnormal returns are computed as the difference between the realized and market model benchmark returns. For each firm we calculate daily benchmark returns using MSCI-Europe index returns and the market model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.*



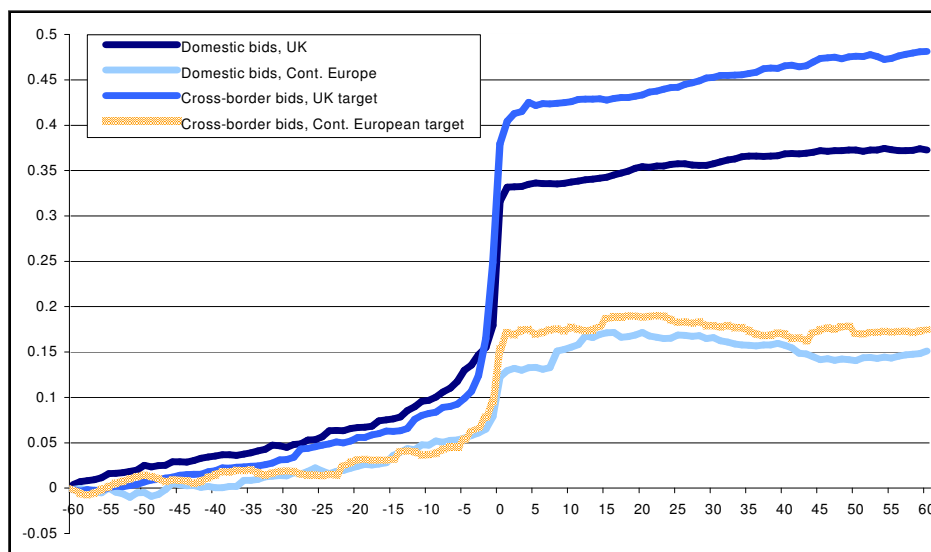
**Figure 22. Bidder CAARs in domestic and cross border bids.**

*This figure shows the market reaction to the announcement of domestic and cross-border M&A transactions for bidding firms. The day of the bid announcement is day 0. Abnormal returns are computed as the difference between the realized and market model benchmark returns. For each firm we calculate daily benchmark returns using MSCI-Europe index returns and the market model parameters estimated over 240 days starting 300 days prior to the acquisition announcement.*



**Figure 23. Target CAARs, UK vs. Continental European targets.**

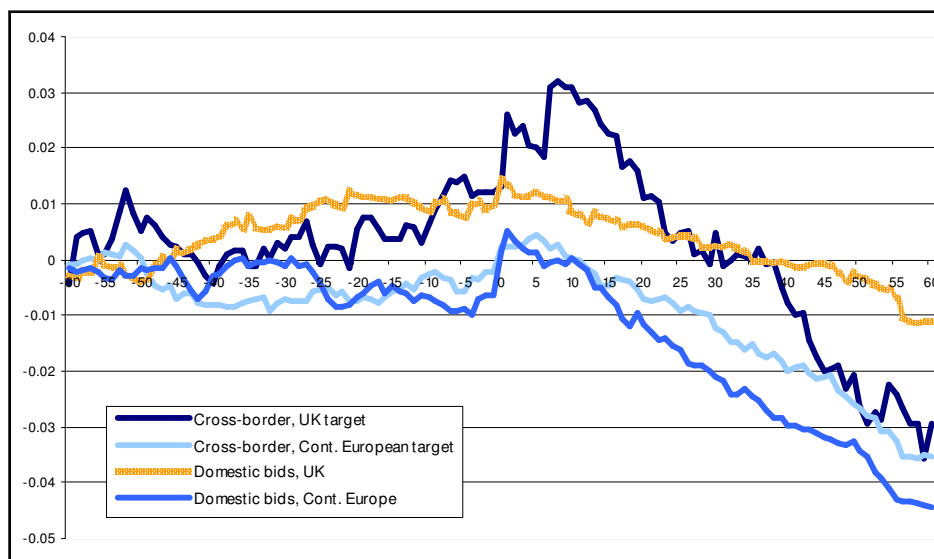
The figure shows the market reaction to the announcement of domestic and cross-border M&A transactions for UK and Continental European target firms. The day of the bid announcement is day 0. Abnormal returns are computed as the difference between the realized and market model benchmark returns. For each firm we calculate daily benchmark returns using MSCI-Europe index returns and the market model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.





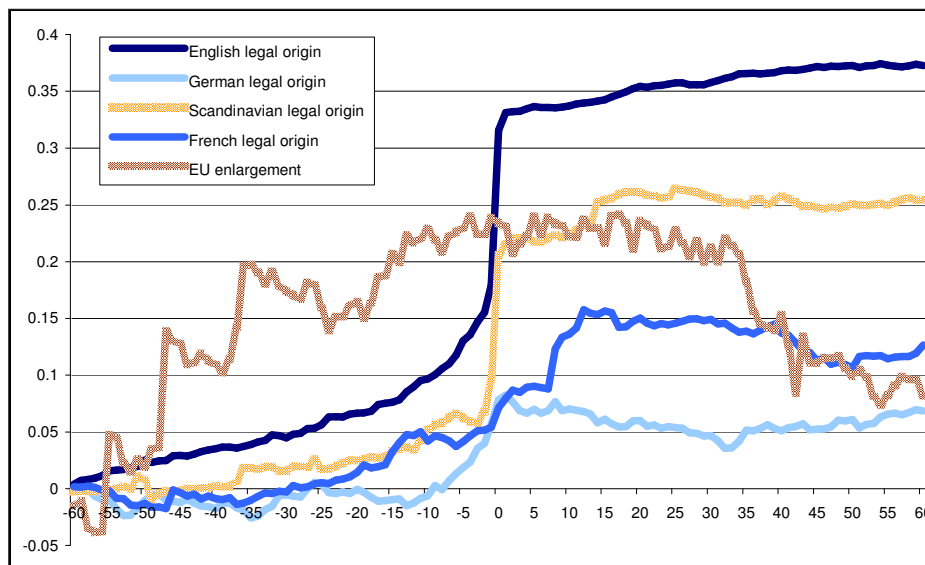
**Figure 24. Bidder CAARs, UK vs. Cont. European target.**

The figure shows the market reaction to the announcement of domestic and cross-border M&A transactions for UK and Continental European bidding firms. The day of the bid announcement is day 0. Abnormal returns are computed as the difference between the realized and market model benchmark returns. For each firm we calculate daily benchmark returns using MSCI-Europe index returns and the market model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.



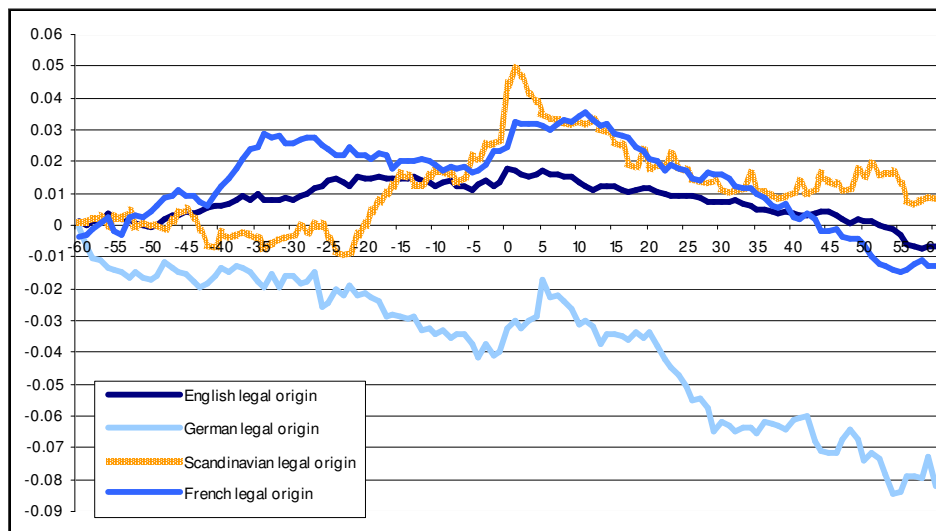
**Figure 25. Target CAARs in domestic bids by legal origin.**

This figure shows the market reaction to the announcement of domestic M&A transactions for target firms by legal origin. Countries are grouped according to their legal origin following the classification by LaPorta et al. (1998) and according to the EU enlargement process. Countries are grouped as follows: English legal origin (Republic of Ireland and the UK), German legal origin (Austria, Germany, Switzerland), French legal origin (Belgium, France, Greece, Italy, Luxembourg, the Netherlands, Portugal, Spain), Scandinavian legal origin (Denmark, Iceland, Finland, Norway, Sweden,), 2004 EU Accession (Czech Republic, Cyprus, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic, Slovenia), 2007-2009 likely EU Accession (Bulgaria, Croatia, Romania). The day of the bid announcement is day 0. Abnormal returns are computed as the difference between the realized and market model benchmark returns. For each firm we calculate the daily benchmark returns using MSCI-Europe index returns and the market model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.



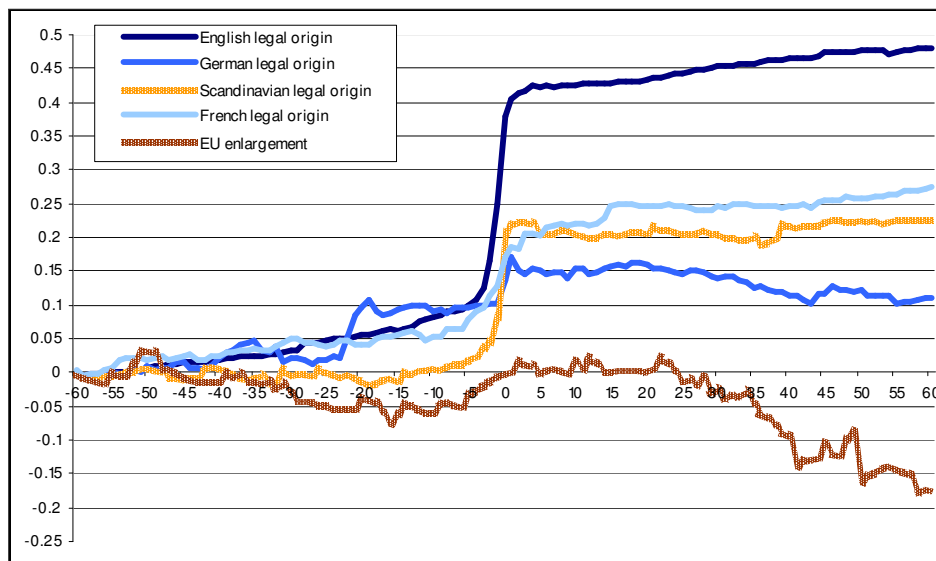
**Figure 26. Bidder CAARs in domestic acquisitions by legal origin.**

*This figure shows the market reaction to the announcement of domestic M&A transactions for bidding firms by legal origin. Countries are grouped according to their legal origin following the classification by La Porta et al. (1998) and according to the EU enlargement process. Countries are grouped as follows: English legal origin (Republic of Ireland and the UK), German legal origin (Austria, Germany, Switzerland), French legal origin (Belgium, France, Greece, Italy, Luxembourg, the Netherlands, Portugal, Spain), Scandinavian legal origin (Denmark, Iceland, Finland, Norway, Sweden,), 2004 EU Accession (Czech Republic, Cyprus, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic, Slovenia), 2007-2009 likely EU Accession (Bulgaria, Croatia, Romania). The day of the bid announcement is day 0. Abnormal returns are computed as the difference between the realized and market model benchmark returns. For each firm we calculate the daily benchmark returns using MSCI-Europe index returns and the market model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.*



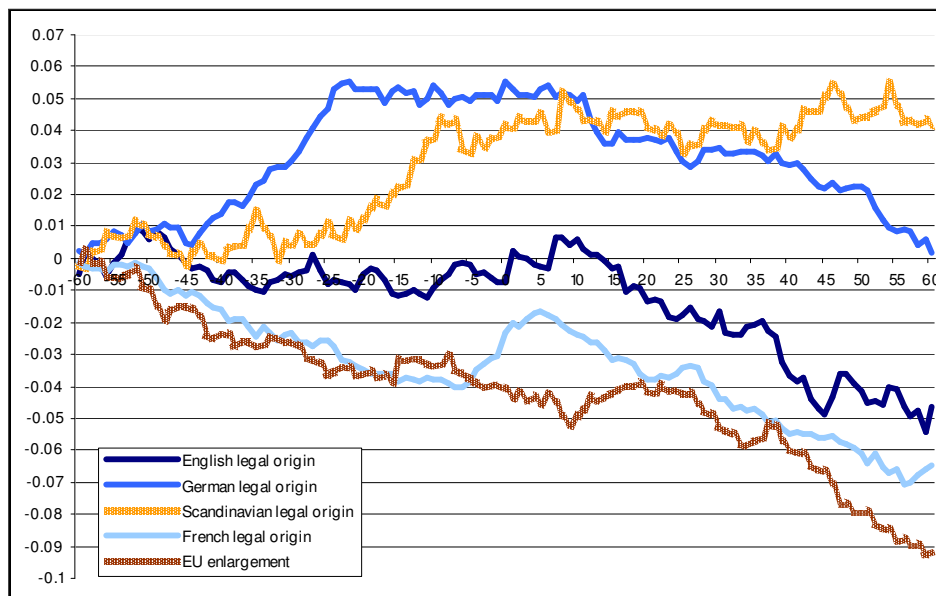
**Figure 27. Target CAARs in cross-border bids by target legal origin.**

*This figure shows the market reaction to the announcement of cross-border M&A transactions for target firms by legal origin. Countries are grouped according to their legal origin following the classification by La Porta et al. (1998) and according to the EU enlargement process. Countries are grouped as follows: English legal origin (Republic of Ireland and the UK), German legal origin (Austria, Germany, Switzerland), French legal origin (Belgium, France, Greece, Italy, Luxembourg, the Netherlands, Portugal, Spain), Scandinavian legal origin (Denmark, Iceland, Finland, Norway, Sweden,), 2004 EU Accession (Czech Republic, Cyprus, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic, Slovenia), 2007-2009 likely EU Accession (Bulgaria, Croatia, Romania). The day of the bid announcement is day 0. Abnormal returns are computed as the difference between the realized and market model benchmark returns. For each firm we calculate the daily benchmark returns using MSCI-Europe index returns and the market model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.*



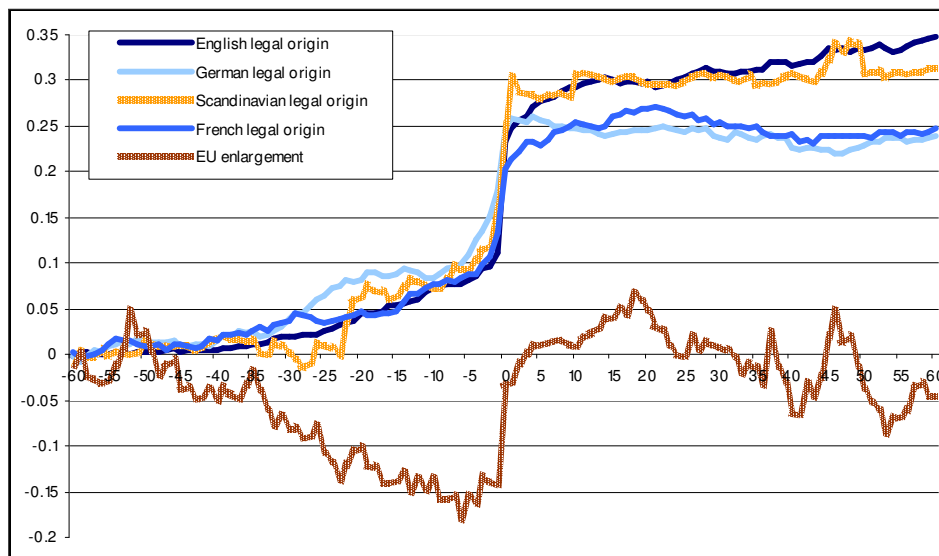
**Figure 28. Bidder CAARs in cross-border bids by target legal origin.**

This figure shows the market reaction to the announcement of cross-border M&A transactions for bidding firms by legal origin. Countries are grouped according to their legal origin following the classification by La Porta et al. (1998) and according to the EU enlargement process. Countries are grouped as follows: English legal origin (Republic of Ireland and the UK), German legal origin (Austria, Germany, Switzerland), French legal origin (Belgium, France, Greece, Italy, Luxembourg, the Netherlands, Portugal, Spain), Scandinavian legal origin (Denmark, Iceland, Finland, Norway, Sweden,), 2004 EU Accession (Czech Republic, Cyprus, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic, Slovenia), 2007-2009 likely EU Accession (Bulgaria, Croatia, Romania). The day of the bid announcement is day 0. Abnormal returns are computed as the difference between the realized and market model benchmark returns. For each firm we calculate the daily benchmark returns using MSCI-Europe index returns and the market model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.



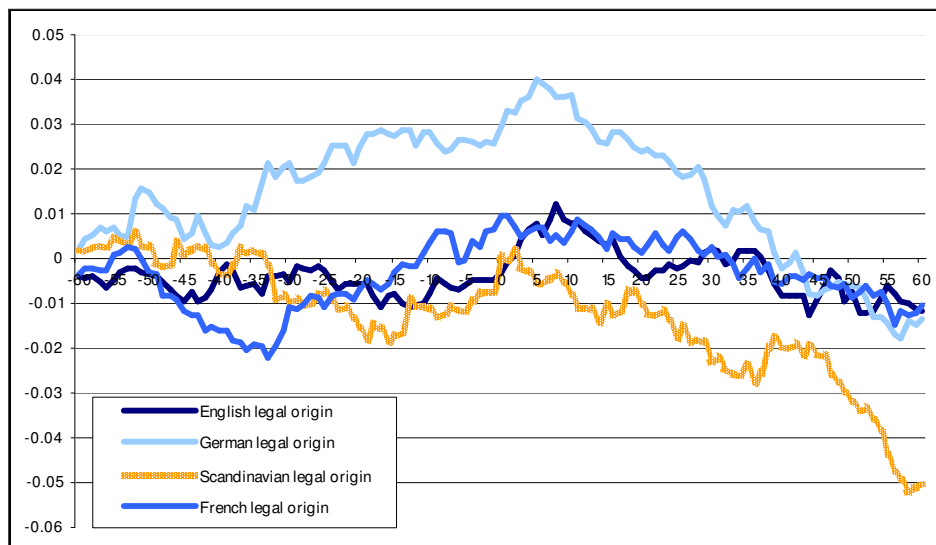
**Figure 29. Target CAARs in cross-border bids by bidder legal origin.**

This figure shows the market reaction to the announcement of cross-border M&A transactions for target firms by bidder legal origin. Countries are grouped according to their legal origin following the classification by La Porta et al. (1998) and according to the EU enlargement process. Countries are grouped as follows: English legal origin (Republic of Ireland and the UK), German legal origin (Austria, Germany, Switzerland), French legal origin (Belgium, France, Greece, Italy, Luxembourg, the Netherlands, Portugal, Spain), Scandinavian legal origin (Denmark, Iceland, Finland, Norway, Sweden,), 2004 EU Accession (Czech Republic, Cyprus, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic, Slovenia), 2007-2009 likely EU Accession (Bulgaria, Croatia, Romania). The day of the bid announcement is day 0. Abnormal returns are computed as the difference between the realized and market model benchmark returns. For each firm we calculate the daily benchmark returns using MSCI-Europe index returns and the market model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.



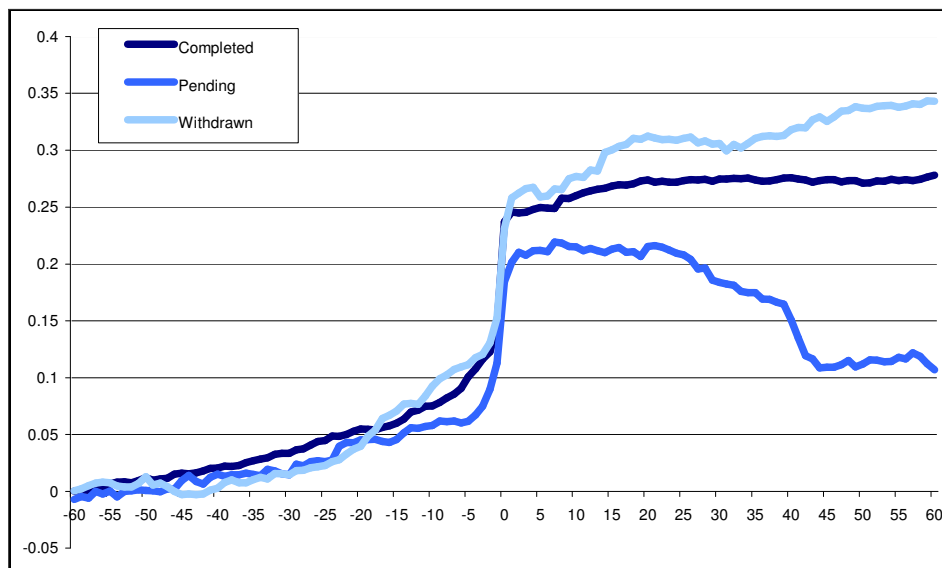
**Figure 30. Bidder CAARs in cross-border acquisitions by bidder legal origin.**

*This figure shows the market reaction to the announcement of cross-border M&A transactions for bidding firms by legal origin. Countries are grouped according to their legal origin following the classification by La Porta et al. (1998) and according to the EU enlargement process. Countries are grouped as follows: English legal origin (Republic of Ireland and the UK), German legal origin (Austria, Germany, Switzerland), French legal origin (Belgium, France, Greece, Italy, Luxembourg, the Netherlands, Portugal, Spain), Scandinavian legal origin (Denmark, Iceland, Finland, Norway, Sweden,). 2004 EU Accession (Czech Republic, Cyprus, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic, Slovenia), 2007-2009 likely EU Accession (Bulgaria, Croatia, Romania). The day of the bid announcement is day 0. Abnormal returns are computed as the difference between the realized and market model benchmark returns. For each firm we calculate the daily benchmark returns using MSCI-Europe index returns and the market model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.*



**Figure 31. Target CAARs by bid completion status.**

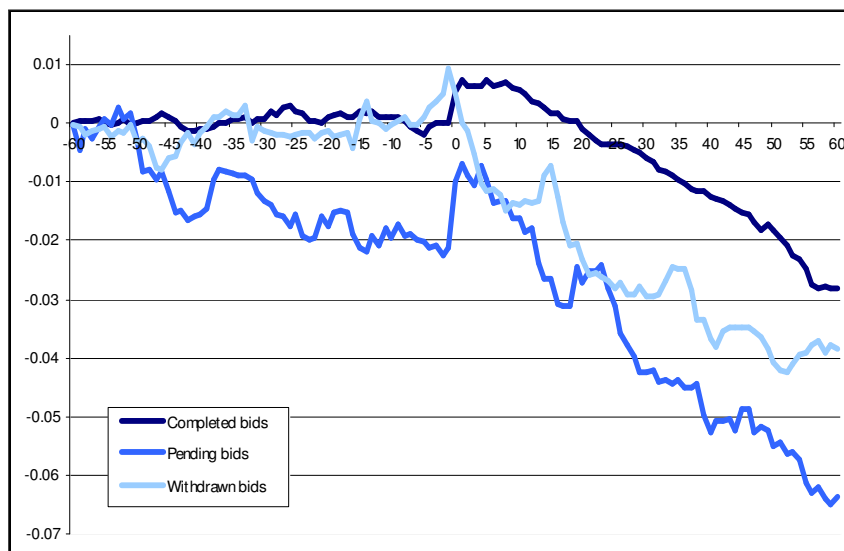
The figure shows the market reaction to the announcement of M&A transactions for target firms by bid completion status. A takeover is considered to be completed if the bidder has successfully acquired control over the target company; it is withdrawn if the bidder failed to acquire control over company; and pending if the acquisition of control has been announced but has not been completed or withdrawn afterwards. The day of the bid announcement is day 0. Abnormal returns are computed as the difference between the realized and market model benchmark returns. For each firm we calculate daily benchmark returns using MSCI-Europe index returns and the market model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.





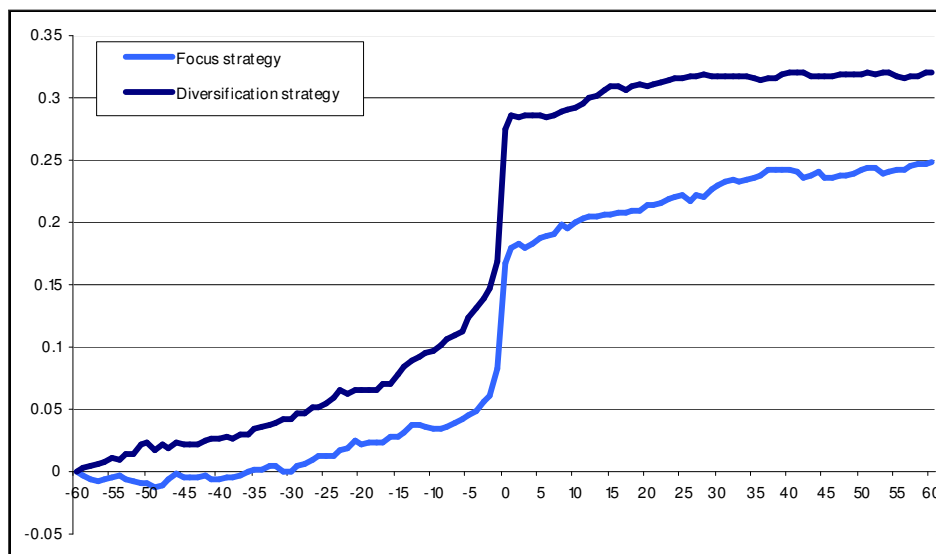
**Figure 32. Bidder CAARs by bid completion status.**

The figure shows the market reaction to the announcement of M&A transactions for bidding firms by bid completion status. A takeover is considered to be completed if the bidder has successfully acquired control over the target company; it is withdrawn if the bidder failed to acquire control over company; and pending if the acquisition of control has been announced but has not been completed or withdrawn afterwards. The day of the bid announcement is day 0. Abnormal returns are computed as the difference between the realized and market model benchmark returns. For each firm we calculate daily benchmark returns using MSCI-Europe index returns and the market model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.



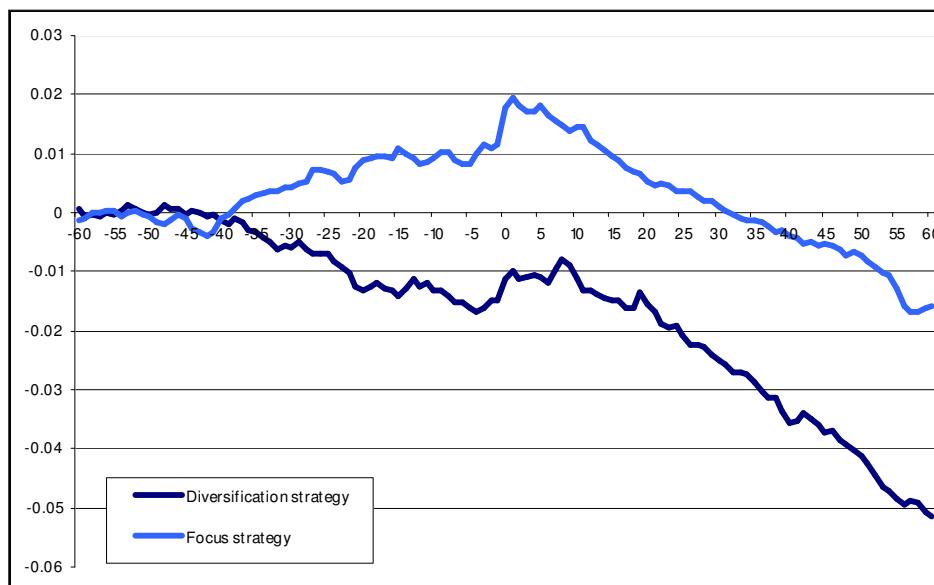
**Figure 33. Target CAARs by corporate strategy, focus vs. diversification.**

*This figure shows the market reaction to the announcement of M&A transactions for target firms by takeover strategy (focus versus diversification). A takeover strategy is considered to be focus-oriented if the 2-digit SIC codes of the bidding and target firms coincide, and to be diversification-oriented if this is not the case. The day of the bid announcement is day 0. Abnormal returns are computed as the difference between the realized and market model benchmark returns. For each firm we calculate the daily benchmark returns using MSCI-Europe index returns and the market model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.*



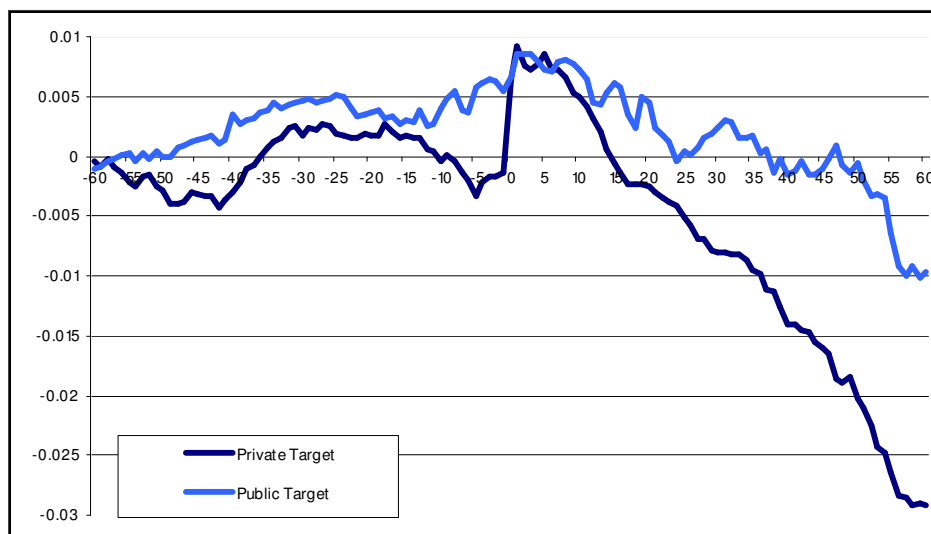
**Figure 34. Bidder CAARs by corporate strategy, focus vs. diversification.**

*This figure shows the market reaction to the announcement of M&A transactions for bidding firms by takeover strategy (focus versus diversification). A takeover strategy is considered to be focus-oriented if the 2-digit SIC codes of the bidding and target firms coincide, and to be diversification-oriented if this is not the case. The day of the bid announcement is day 0. Abnormal returns are computed as the difference between the realized and market model benchmark returns. For each firm we calculate the daily benchmark returns using MSCI-Europe index returns and the market model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.*



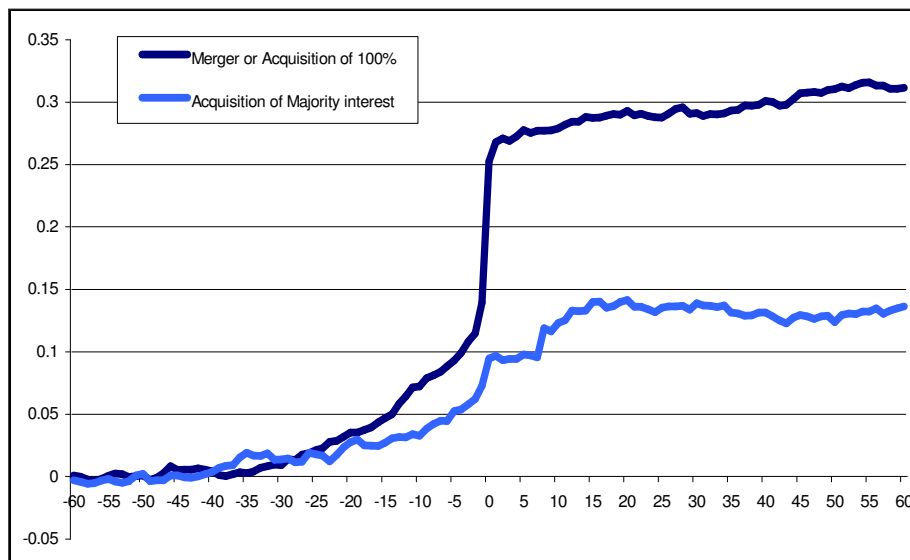
**Figure 35. Bidder CAARs by target legal status (private vs. public).**

The figure shows the market reaction to the announcement of M&A transactions for bidding firms by legal status of target firms (public vs. private). A target firm is considered to be private if it is a stand-alone firm not listed on any stock exchange. The day of the bid announcement is day 0. Abnormal returns are computed as the difference between realized and market model benchmark returns. For each firm we calculate the daily benchmark returns using MSCI-Europe index returns and the market model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.



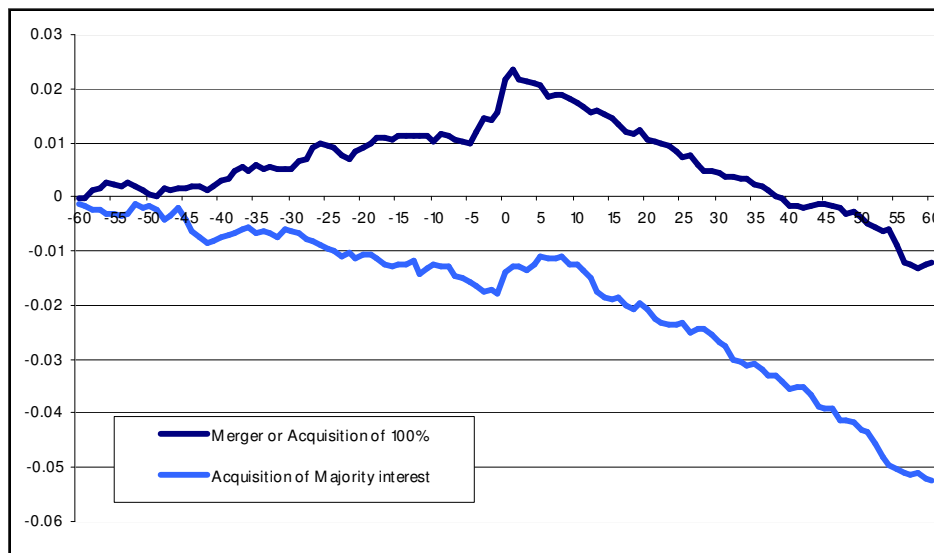
**Figure 36. Target CAARs by the form of takeover.**

The figure shows the market reaction to the announcement of M&A transactions for target firms by form of takeover (a merger or acquisition of 100% of the equity versus and acquisition of a majority stake). An acquisition of a majority stake occurs if the total shareholding of the bidder after the deal completion is less than 100%. The day of the bid announcement is day 0. Abnormal returns are computed as the difference between the realized and market model benchmark returns. For each firm we calculate the daily benchmark returns using MSCI-Europe index returns and the market model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.



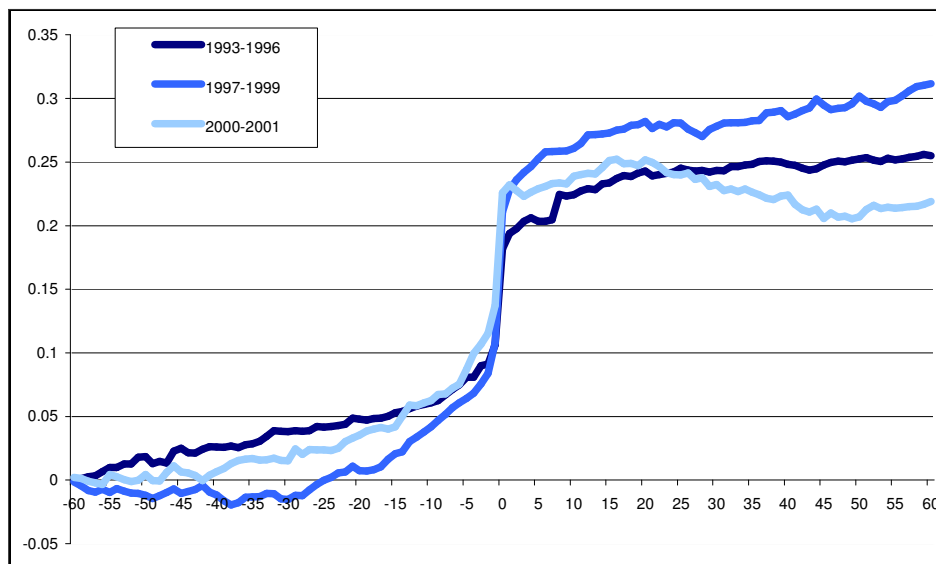
**Figure 37. Bidder CAARs by the form of takeover.**

The figure shows the market reaction to the announcement of M&A transactions for bidding firms by form of takeover (a merger or acquisition of 100% of the equity versus and acquisition of a majority stake). An acquisition of a majority stake occurs if the total shareholding of the bidder after the deal completion is less than 100%. The day of the bid announcement is day 0. Abnormal returns are computed as the difference between the realized and market model benchmark returns. For each firm we calculate the daily benchmark returns using MSCI-Europe index returns and the market model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.



**Figure 38. Target CAARs by sub-periods of the 5th takeover wave.**

*This figure shows the market reaction to the announcement of M&A transactions for target firms by sub-periods of the fifth takeover wave: bids announced in the beginning of the wave (1993-1996), at the peak of the wave (1997-1999), and subsequent to the peak (2000-2001). The day of the bid announcement is day 0. Abnormal returns are computed as the difference between the realized and market model benchmark returns. For each firm we calculate the daily benchmark returns using MSCI-Europe index returns and the market model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.*



**Figure 39. Bidder CAARs by sub-periods of the 5th takeover wave.**

*This figure shows the market reaction to the announcement of M&A transactions for bidding firms by sub-periods of the fifth takeover wave: bids announced in the beginning of the wave (1993-1996), at the peak of the wave (1997-1999), and subsequent to the peak (2000-2001). The day of the bid announcement is day 0. Abnormal returns are computed as the difference between the realized and market model benchmark returns. For each firm we calculate the daily benchmark returns using MSCI-Europe index returns and the market model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.*

